

B. Monitoring Requirements

1. Testing shall be conducted on a single flow-proportioned composite of the composite samples of the stormwater runoff. Effluent samples collected for the acute toxicity testing and chemical monitoring shall be collected on split rather than simultaneous samples of effluent.
2. A portion of each bioassay sample shall be preserved (refrigerated in the dark) for later further chemical analysis should the bioassay fail.
3. The same two organisms shall be used for each of the test periods. After the first four test periods, only the most sensitive species is required to be tested. If no mortality is observed, future tests should be limited to a single species that is believed to be sensitive to the discharge.
4. All tests shall measure the response of the organisms in 100 percent effluent concentrations. If mortality in a given test exceeds 20 percent in the 100 percent effluent concentration, the Permittee shall notify Ecology and resample the effluent and retest the effluent in a series of dilutions (0, 6.25, 12.5, 25, 50, and 100 percent effluent concentrations, or another approved dilution series) to determine the LC50 and any statistically significant differences between the results for the control and each effluent concentration tested. The Permittee shall also investigate for any unusual conditions (including spills and poor operating procedures) which might have caused the toxicity.

If the definitive test demonstrates the presence of acute toxicity, the Permittee shall immediately notify Ecology and undertake the following actions as needed to determine the source of toxicity:

- Chemical analyses of the effluent.
- Evaluation of treatment processes and chemicals used.
- Physical inspection of facility for proper operation and treatment units, spills, etc.
- Examination of records such as discharge monitoring reports and spill reports.
- Interviews with plant personnel to determine if toxicant releases occurred through spills, unusual operating conditions, etc.

The Permittee may be directed to take additional steps to reduce toxicity remaining after completion of the above steps. The goal of any additional measures will be to achieve reduction in toxicity within the shortest reasonable time.

5. A written report of the toxicity test results and any source investigations shall be submitted to the Department within 60 days after sampling occurred.

Each written report shall include all relevant information outlined in Section 10, Report Preparation, of Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, EPA/600/4-89/001, December 1985.

C. Protocols

The bioassays shall be conducted in accordance with the following protocols or approved modifications thereof:

Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms, EPA/600/4-85/013, March 1985.

D. Quality Assurance/Quality Control Procedures

All quality assurance criteria used (including the LC50 calculation method) shall be in accordance with Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms, EPA/600/4-85/013, and Quality Assurance Guidelines for Biological Testing, EPA/600/4-78-043, or approved modifications thereof. Test results which are not valid (e.g., control mortality exceeds acceptable level) will not be accepted and testing must be repeated.

S7. SEDIMENT MONITORING

A. Study Plan

The Permittee shall prepare a comprehensive site-specific study plan addressing the requirements specified for the chemical and biological studies identified in the following subsections even though only the chemical studies may be required. This plan shall be submitted within 24 months of the issue date of this permit. Following Ecology approval of the plan, sampling and analysis for sediment chemistry (Section B below) shall be conducted during March or April within the third year of the term of this permit. If chemical concentrations exceed the sediment quality criteria then the Permittee will be required to conduct biological testing (Section C). The studies described in Subsections B and C may be conducted simultaneously. A written report of the results of the chemical analysis, and biological testing if done concurrently, shall be submitted to Ecology by September 1, 1994. If the sediment

chemical analysis exceeds the sediment quality criteria, the biological testing must be completed and the results submitted to Ecology by December 1, 1994. Send an additional copy of the report to the Department of Natural Resources, Mail Stop QW-21, Olympia, WA 98504, Attention: Dave Jamison.

B. Chemical Analysis

1. Location and Parameters

The Permittee shall conduct chemical analyses of the sediment samples collected in the area of each outfall in accordance with protocols, study requirements, and QA/QC procedures specified in this section. Any recent data on the chemical analysis of the sediment may be submitted to Ecology as part of the sampling plan (above) for consideration as a fulfillment of this requirement. Recent data submitted to satisfy this requirement must include analyses of the chemicals specified in this section and be representative of sediments adjacent to or directly affected by discharges from the permitted outfalls.

The samples shall be analyzed for Arsenic, Chromium, Copper, Lead, Mercury, Nickel, Silver, and Zinc reported as mg/kg dry weight; Total LPAH, Total HPAH, Trichloroethene, Trichloroethane, Hexachlorobenzene, Tetrachloroethene, Ethylbenzene, Total xylene, PCB's, and 2-Butanone reported as ug/kg dry weight. In addition to analyzing for specified toxic pollutants, the Permittee shall analyze the sediment samples for grain size, TOC, oil and grease, ammonia, total sulfides, and other parameters needed to evaluate the sediment chemistry data.

2. Protocols

Sediment monitoring shall be conducted in accordance with the protocols (or approved modifications thereof) included in the document, Puget Sound Protocols, Final Report, TC-3991-04, Prepared for U.S. Environmental Protection Agency - Puget Sound Estuary Program, Tetra Tech Inc., March 1986. Detection levels must be in the low parts-per-billion range for semi-volatiles (i.e., the screening levels for detection, as referenced in Table 2 of the Organic Compound section of the Puget Sound Protocols, shall not be used).

Sediment monitoring shall also be conducted in accordance with Appendix A of the Integrated Action Plan for the Commencement Bay Nearshore Tidelands Superfund site.

3. Monitoring Requirements

- a. The Permittee's plan shall include a minimum of a subtidal marine sediment core (0-10 cm) that shall be located immediately offshore of each outfall. Ecology may modify this sampling plan if new information or the sampling plan indicates a better sampling distribution.
- b. The Permittee shall use some method of fixing the location of the sampling stations (i.e., triangulation off the shore, microwave navigation system, or using Loran or Satnav coordinates). The proposed method of fixing location shall be identified in the study plan. Any subsequent reports shall document position method and station locations.
- c. The sediment collected for samples shall consist of the upper two centimeters of sediment, and 2-10 cm. Sufficient sample should be collected for both the chemical and biological tests (the 0-2 cm sample shall be split for chemical and biological testing). This may require multiple grabs/casts at each station and the compositing of the intrastation samples.

4. Quality Assurance/Quality Control Procedures

The Permittee shall follow the quality assurance procedures discussed in the protocols cited in section 2 above.

C. Biological Tests

The following biological test of surface (0-2 cm) sediments must be completed at a minimum of one station:

1. Acute tests- Amphipod *Rhepoxynius abronius* ten-day sediment bioassay.
2. Protocols - The protocols for the biological tests are given in Recommended Protocols for Measuring Selected Environmental Variables in Puget Sound. Final Report No. TC-3991-04. Prepared for U.S. Environmental Protection Agency, Puget Sound Estuary Program by Tetra Tech Inc. March 1986.
3. QA/QC - The Permittee shall follow the quality assurance procedures discussed in the protocols cited above.

S8. SPILL PLAN

The Permittee shall biennially update the existing Spill Control Plan, subject to Ecology approval, for the prevention, containment, and control of spills or unplanned discharges of: 1) oil and petroleum products or 2) materials, which when spilled, or otherwise released into the environment, are designated Dangerous (DW) or Extremely Hazardous Waste (EHW) by the procedures set forth in WAC 173-303-070.

The updated spill control plan shall include the following:

1. A description of the reporting system which will be used to alert responsible managers and legal authorities in the event of a spill.
2. A description of preventive measures and facilities (including an overall facility plot showing drainage patterns) which prevent, contain, or treat spills of these materials.
3. A list of all oil and chemicals used, processed, or stored at the facility which may be spilled into state waters.

For the purpose of this requirement, plans and manuals required by 40 CFR Part 112, and contingency plan under Chapter 173-303 WAC may be included.

An updated spill control plan shall be submitted to the Southwest Regional Office of Ecology for review and approval within six months of the issuance date of this permit. The spill control plan and supplement shall be followed throughout the term of the permit.

S9. BEST MANAGEMENT PRACTICES FOR DRYDOCK, VESSEL, AND YARD OPERATIONS AND MAINTENANCE

A BMP plan shall be submitted within three months of permit issuance to the Department for review and approval. Revisions shall be submitted to Ecology.

A. Control of Large Solid Materials

Floatable and low density waste such as wood, plastic, as well as miscellaneous trash (e.g., paper, insulation, and packaging) shall be removed from the dry dock floor prior to flooding or sinking.

B. Control and Cleanup of Paint Dust and Abrasive Blasting Debris

Dust and overspray shall be prevented from discharging beyond the confines of the drydock or the yard area to the maximum extent feasible during abrasive blasting and spray painting of vessels and modules. Feasible methods of control include, but not limited to, plastic barriers hung from the flying bridge of the dry dock, from the bow or stern of the vessel or drydock or from temporary structures erected for that purpose.

The bottom edge of tarpaulins and plastic sheeting shall be weighted or fastened to remain in place during a light breeze.

Consideration shall also be given to other feasible innovative procedures as appropriate to improve the effectiveness of controls.

No blasting or painting shall be performed while vessels are docked pier-side such that material is discharged to the receiving water.

Cleanup of spent paint, paint chips, protective coating materials, and abrasives shall be undertaken as part of the repair or production activities, to the extent technically feasible, to prevent their entry into state waters.

Mechanical cleanup may be accomplished by mechanical sweepers, front end loaders, vacuum cleaners, or other innovative equipment. Manual methods include the use of shovels and brooms. Those portions of the drydock floor and yard areas which are reasonably accessible shall be "scraped or broomed clean" to remove spent abrasive. The yard shall be cleaned on a regular basis to minimize the possibility that runoff will carry sandblasting material or other debris into the receiving water. There shall be no visible sheen created by any floating detritus resulting from abrasive blasting. Collected sandblasting debris shall be stored with the spent grit. The spent sandblasting grit, dust, and other debris shall not accumulate to an extent that could be judged to be more than a minor deposition by vehicular or pedestrian traffic between regular cleanup efforts.

Innovations and procedures which improve the effectiveness of cleanup operations shall be adopted where they are feasible, appropriate, and can be demonstrated as preventing the discharge of solids to the water.

C. Oil, Grease, and Fuel Spills Prevention and Containment

No discharge of oil or hazardous material to state waters is permitted, except as specifically authorized in this permit. Oil, grease, or fuel spills shall be prevented from reaching drainage systems or surface waters. Cleanup shall be carried out promptly after an oil, grease, or fuel spill is detected. Oil containment booms and adsorbents shall be conveniently stored so as to be immediately deployable in the event of a spill.

In the event of an accidental discharge of oil or hazardous material into waters of the state or onto land with a potential for entry into state waters, representatives of this department and the United States Coast Guard shall be notified immediately.

1. Cleanup efforts shall commence immediately and be completed as soon as possible, taking precedence over normal work, and shall include proper disposal of any spilled material and used cleanup materials.
2. Cleanup of oil/hazardous material spills shall be in accordance with an approved Spill Prevention and Countermeasure Plan or according to specific instructions of the On-Scene Coordinator.
3. No emulsifiers or dispersants are to be used in waters of the state without prior approval from the Director of the Department of Ecology.

Drip pans or other protective devices shall be required for all oil transfer operations to catch incidental spillage and drips from hose nozzles, hose racks, drums, or barrels. Oils and fuel shall not be stored on piers or drydock areas. All oil and fuel storage tanks shall be provided with secondary containment.

D. Paint and Solvent Use and Containment

The mixing of paints and solvents shall be carried out in locations and under conditions such that no spill shall enter state waters.

1. Drip pans or other protective devices shall be required for all paint mixing and solvent transfer operations, unless the mixing operation is carried out in controlled areas away from storm drains, surface waters, shorelines, and piers. Drip pans, drop cloths, or tarpaulins shall be used wherever paints and solvents are mixed on wood docks. Paints and solvents shall not be mixed on floats.
2. When painting from floats, paint shall be in cans of five gallons or less and the amount of paint in the container shall be limited to two gallons or less. The paint containers shall be kept in drip pans with drop cloths or tarpaulins underneath the drip pans.
3. Paint and solvent spills shall be treated as oil spills and shall be prevented from reaching storm drains or deck drains and subsequent discharge into the water.

E. Contact Between Water and Debris

Shipboard cooling and non-contact process water shall be directed so as to minimize contact with spent abrasive, paint, and other debris. Contact of spent abrasive and paint with water will be reduced by proper segregation and control of wastewater streams. Appropriate methods shall be incorporated to prevent accumulation of debris in drainage systems and debris shall be promptly removed to prevent its discharge with stormwater.

F. Maintenance of Hoses, Soil Chutes, and Piping

Leaking connections, valves, pipes, hoses, and soil chutes carrying either water or wastewater shall be replaced or repaired immediately. Soil chute and hose connections to vessels and to receiving lines or containers shall be tightly connected and as leak free as practicable.

G. Bilge and Ballast Water

Bilge and ballast water discharges shall not exceed an oil and grease concentration of ten (10) milligrams per liter and shall not cause any visible oil sheen in the receiving waters.

Bilge and ballast water shall not be discharged to state waters if solvents, detergents, or other known or suspected additives or contaminants have been added, unless a state water quality variance has been granted specific to that instance.

H. Chemical Storage

Solid chemicals, chemical solutions, paints, oils, solvents, acids, caustic solutions, and waste materials, including used batteries, shall be stored in a manner which will prevent the inadvertent entry of these materials into waters of the state, including ground waters. Storage shall be in a manner that will prevent spillage by overfilling, tipping, or rupture. In addition, the following practices shall be used:

1. All liquid products shall be stored over durable impervious surfaces and behind berms.
2. Waste liquids shall be stored under cover, such as tarpaulins or roofed structures or in a closed vessel.
3. Incompatible or reactive materials shall be segregated and securely stored in separate containment areas that prevent mixing of chemicals.

4. Concentrated waste or spilled chemicals shall be transported off-site for disposal at a facility approved by the Department of Ecology or appropriate county health department in accordance with the solid waste disposal plan requirements of Special Condition S4. These materials shall not be discharged to any sewer or state waters.

I. Recycling of Spilled Chemicals and Rinse Water

All metal finishing chemical solution, caustic wash, and rinse water tanks shall be stored in diked areas with drains to intercept overflows and spills. Any intercepted chemical spill shall be recycled back to the appropriate chemical solution tank or disposed of. The spilled material must be handled, recycled, or disposed of in such manner as to prevent its discharge into state waters. Rinse water from dip tank processes shall not be allowed to enter the storm drains or waters of the state.

S10. OTHER REQUIREMENTS

A. Sanitary Sewage and Steamcleaning Wastewater

Sanitary sewage and wastewater from steamcleaning operations are to be discharged into the sanitary sewers with prior approval from the local sanitary sewer authority.

B. Sewage, Gray Water, and Other Specific Discharges Prohibited

Owners of vessels in ways or under repair dockside shall be notified in writing by the Permittee that federal and state regulations prohibit the discharge of sewage (including discharges from the ship's galley while at dockside) into the waterways. If untreated sanitary wastes from vessels are to be discharged, the discharge shall be to either the sanitary sewer or into holding tanks that are periodically emptied into a sanitary sewer system. The Permittee will make available at all times a list of contractors providing disposal services and any other alternatives available for complying with these regulations such as holding tanks and pump-out facilities.

C. Storm Drain Sediment and Grit Removal

Within 30 days of permit issuance, the Permittee shall submit a plan to remove sediments and sandblasting grit from the storm drain system (catch basins and lines), which will include a description of measures that will be taken to ensure that storm drain sediments are not discharged to the waterway during those operations. Within 15 days of plan approval the Permittee must complete the removal of all sediments from storm drain catch basins and lines. Those sediments must be adequately characterized by a laboratory accredited by the Department of Ecology prior to disposal. The testing required to

attain adequate characterization is to be determined by the Department of Ecology or the appropriate county health department. Wastewater collected from storm drain cleaning shall be characterized according to the methods and parameters specified for monthly monitoring of stormwater discharges. A final report describing the sediment and grit removal effort is due to the Department within 30 days after the removal is complete.

This permit also requires the inspection of storm drain lines at a minimum of once per month, and solids must be removed as necessary to ensure the interception and retention of solids entering the drainage system. A storm drain log book must be maintained to record all information pertaining to the storm drain inspection program and sediment removal efforts. If BMPs are not successful in reducing sandblasting grit or other pollutant discharge to the maximum extend practicable into the storm drain systems, the permittee must submit a plan by the twelfth month of the permit proposing technology for eliminating such discharge to the waterway. Repeated violations of effluent limits shall also trigger the requirement to submit such a plan.

D. Stormwater Flow Calculation

On an annual basis, the Permittee shall provide to the Department an annual estimate of stormwater flow from each storm drain system for the previous year.

A site inspection shall be conducted annually by the Permittee to verify the accuracy of the description of potential pollutant sources, to update or otherwise modify the drainage map to reflect current conditions, and to verify the adequacy of controls to reduce pollutants in stormwater discharges associated with industrial activities. The Permittee shall provide Ecology with all updated information.

E. Annual Spill Event Submittal

The Permittee is required to submit, on an annual basis, a list of significant spills and leaks of toxic or hazardous pollutants that occurred at the facility after the effective date of this permit. Such a list should include a description of materials released, an estimate of the volume of the release, the location of the release, a description of cleanup measures taken, and measures taken to prevent recurrence.

F. Reopener

Ecology may reopen this permit on the basis of monitoring results or other causes consistent with state and federal regulations, to modify or establish specific monitoring requirements, effluent limitations, or other conditions in the permit.

G. Schedule of Compliance for Hydroblasting Discharges

Within 6 months of the effective date of this permit, the Permittee shall submit a report in conformance with Chapter 173-240 WAC which outlines options for meeting hydroblasting effluent permit limitations for oil and grease, total suspended solids, and metals and for meeting water quality criteria specified in Chapter 173-201 WAC. If treatment and collection facilities are required, design criteria shall be based on anticipated maximum flow. Plans and specifications are to be submitted two months after approval of the engineering report. Construction is to be completed four months after approval of plans and specifications.

The Permittee is expected to meet this compliance schedule. No later than 14 calendar days following dates identified above, the Permittee shall submit to the Southwest Regional Office of Ecology a notice of compliance or noncompliance with the specified schedule.

H. Schedule of Compliance for Stormwater discharges

Within 24 months of the effective date of this permit, upon notification by Ecology, the Permittee shall submit an engineering report in conformance with Chapter 173-240 WAC which outlines options for meeting stormwater effluent permit limitations for oil and grease, total suspended solids, metals, and for meeting water quality criteria specified in Chapter 173-201 WAC. If treatment and collections facilities are required, design criteria shall be based on the stormwater flow from a five year, 24-hour storm event. The collection treatment facilities shall be operational within 36 months of permit issuance.

GENERAL CONDITIONS

G1. Discharge Violations

All discharges and activities authorized by this permit shall be consistent with the terms and conditions of this permit. The discharge of any pollutant more frequently than, or at a concentration in excess of, that authorized by this permit shall constitute a violation of the terms and conditions of this permit.

G2. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of collection, treatment, and control (and related appurtenances) which are installed or used by the Permittee for pollution control.

G3. Reduced Production for Compliance

The Permittee, in order to maintain compliance with its permit, shall control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

G4. Non-compliance Notification

If for any reason, the Permittee does not comply with, or will be unable to comply with, any of the discharge limitations or other conditions specified in the permit, the Permittee shall, at a minimum, provide the Department of Ecology (Ecology) with the following information:

- A. A description of the nature and cause of non-compliance, including the quantity and quality of any unauthorized waste discharges;
- B. The period of non-compliance, including exact dates and times and/or the anticipated time when the Permittee will return to compliance; and
- C. The steps taken, or to be taken, to reduce, eliminate, and prevent recurrence of the non-compliance.

In addition, the Permittee shall take immediate action to stop, contain, and clean up any unauthorized discharges and take all reasonable steps to minimize any adverse impacts to waters of the state and correct the problem. The Permittee shall notify Ecology by telephone so that an investigation can be made to evaluate any resulting impacts and the corrective actions taken to determine if additional action should be taken. In the case of any discharge subject to any applicable toxic

pollutant effluent standard under Section 307(a) of the Clean Water Act, or which could constitute a threat to human health, welfare, or the environment, 40 CFR Part 122 requires that the information specified in Sections G4.A., G4.B., and G4.C., above, shall be provided not later than 24 hours from the time the Permittee becomes aware of the circumstances. If this information is provided orally, a written submission covering these points shall be provided within five days of the time the Permittee becomes aware of the circumstances, unless Ecology waives or extends this requirement on a case-by-case basis.

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the conditions of this permit or the resulting liability for failure to comply.

G5. Bypass Prohibited

The intentional bypass of wastes from all or any portion of a treatment works is prohibited unless the following four conditions are met:

- A. Bypass is: (1) unavoidable to prevent loss of life, personal injury, or severe property damage; or (2) necessary to perform construction or maintenance-related activities essential to meet the requirements of the Clean Water Act and authorized by administrative order;
- B. There are no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, maintenance during normal periods of equipment down time, or temporary reduction or termination of production;
- C. The Permittee submits notice of an unanticipated bypass to Ecology in accordance with Condition G4. Where the Permittee knows or should have known in advance of the need for a bypass, this prior notification shall be submitted for approval to Ecology, if possible, at least 30 days before the date of bypass (or longer if specified in the special conditions); and
- D. The bypass is allowed under conditions determined to be necessary by Ecology to minimize any adverse effects. The public shall be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible.

"Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

After consideration of the factors above and the adverse effects of the proposed bypass, Ecology will approve or deny the request. Approval of a request to bypass will be by administrative order under RCW 90.48.120.

G6. Right of Entry

The Permittee shall allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

- A. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit;
- B. To have access to and copy at reasonable times any records that must be kept under the terms of the permit;
- C. To inspect at reasonable times any monitoring equipment or method of monitoring required in the permit;
- D. To inspect at reasonable times any collection, treatment, pollution management, or discharge facilities; and
- E. To sample at reasonable times any discharge of pollutants.

G7. Permit Modifications

The Permittee shall submit a new application or supplement to the previous application where facility expansions, production increases, or process modifications will (1) result in new or substantially increased discharges of pollutants or a change in the nature of the discharge of pollutants, or (2) violate the terms and conditions of this permit.

G8. Permit Modified or Revoked:

After notice and opportunity for public hearing, this permit may be modified, terminated, or revoked during its term for cause as follows:

- A. Violation of any terms or conditions of the permit;
- B. Failure of the Permittee to disclose fully all relevant facts or misrepresentations of any relevant facts by the Permittee during the permit issuance process;
- C. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the permit;
- D. Information indicating that the permitted discharge poses a threat to human health or welfare;
- E. A change in ownership or control of the source; or

F. Other causes listed in 40 CFR 122.62 and 122.63.

Permit modification, revocation and reissuance, or termination may be initiated by Ecology or requested by any interested person.

G9. Reporting a Cause for Modification

A Permittee who knows or has reason to believe that any activity has occurred or will occur which would constitute cause for modification or revocation and reissuance under Condition G8 or 40 CFR 122.62 must report such plans, or such information, to Ecology so that a decision can be made on whether action to modify or revoke and reissue a permit will be required. Ecology may then require submission of a new application. Submission of such application does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

G10. Toxic Pollutants

If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Clean Water Act for a toxic pollutant and that standard or prohibition is more stringent than any limitation upon such pollutant in the permit, Ecology shall institute proceedings to modify or revoke and reissue the permit to conform to the new toxic effluent standard or prohibition.

G11. Plan Review Required

Prior to constructing or modifying any wastewater control facilities, detailed plans shall be submitted to Ecology for approval in accordance with Chapter 173-240 WAC. Facilities shall be constructed and operated in accordance with the approved plan.

G12. Other Requirements of 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G13. Compliance With Other Laws and Statutes

Nothing in the permit shall be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G14. Additional Monitoring

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G15. Revocation for Non-Payment of Fees

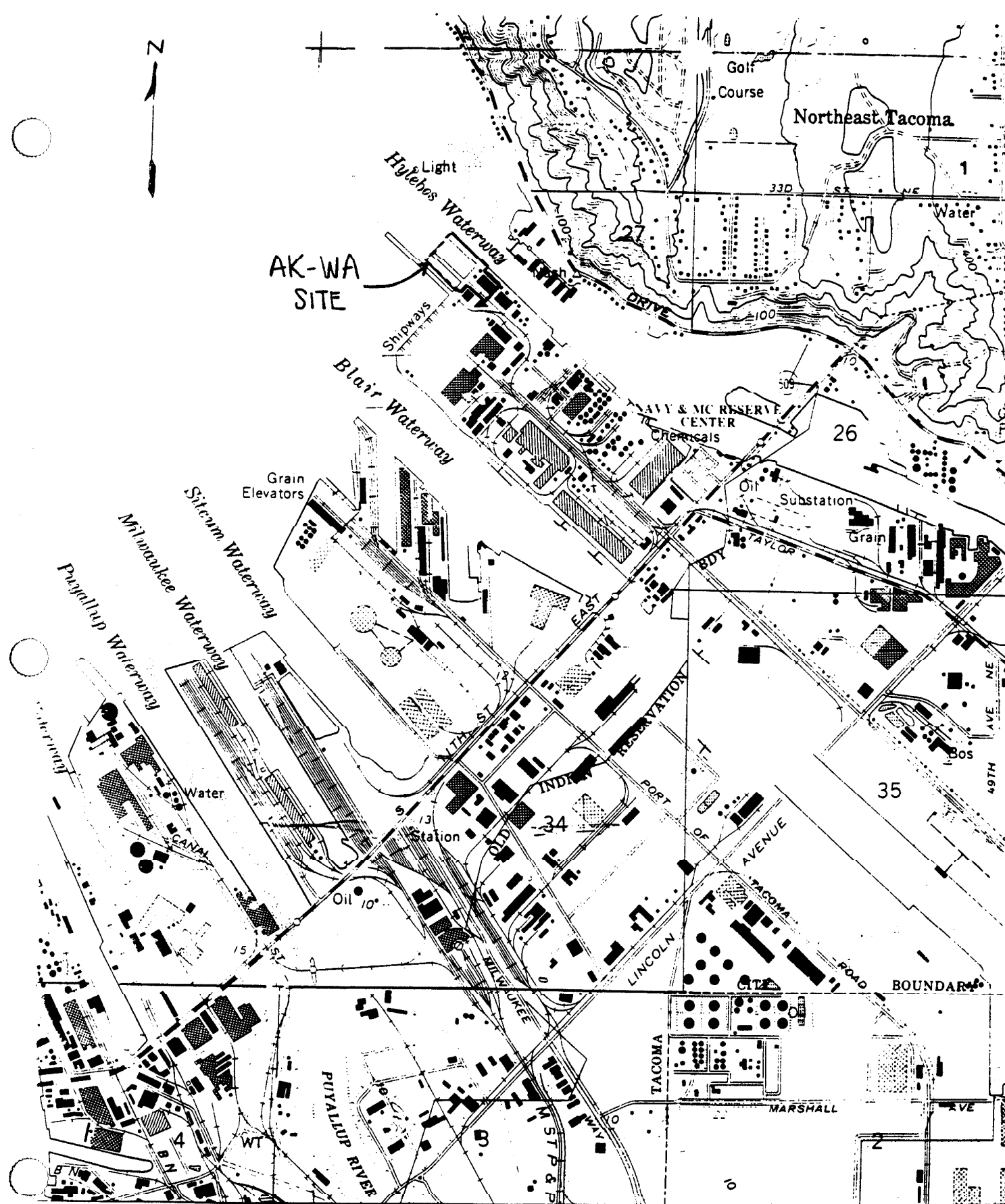
Ecology may revoke this permit if the permit fees established under Chapter 173-224 WAC are not paid.

G16. Removed Substances

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

G17. Duty to Reapply

The Permittee must reapply, for permit renewal, at least 180 days prior to the specified expiration date of this permit.



DATE 5

544

25'

1 610 000 FEET (NORTH)

● INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—

546

547000

1 MILE

ROAD CLASSIFICATION

PIER 25

DRYDOCK
"OUTFALL 001"

REFURBISHED WASH
SLAB W/ OILY-
VIAIRIE SERVICING

PIER 24

5884

OUTFALL 001

SAND
BLAST
SHED

5860

OUTFALL
003

OUTFALL
002

5875

5800

5885

LEGEND

SDO - STORM DRAIN

→ SURFACE FLOW

--- HIGHWAYS

-/- STORM
SYSTEM
BOUNDARIES

AK-WA INC
SIDEM DRAIN SYSTEM W/ SURFACE FLOWS
11-27-90

N.

May 1991

FACT SHEET

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

APPLICANT: AK-WA Incorporated

FACILITY LOCATION: 401 Alexander Avenue, Bldg #588
Tacoma, Washington 98421

PERMIT NUMBER: WA-004014-2

ACTIVITY: Ship Repair and Conversion

LOCATION: Drydock - 47° 17' 05"; 122° 24' 20"
Storm Drain Outfalls - 47° 17' 00"; 122° 24' 30"

RECEIVING WATER: Hylebos Waterway, Inner Commencement Bay

PUBLIC COMMENT AND INFORMATION

AK-WA Incorporated has applied for a National Pollutant Discharge Elimination System (NPDES) Permit to discharge pollutants pursuant to the provisions of Chapter 90.48 Revised Code of Washington (RCW), as amended, and the Federal Water Pollution Control Act (Clean Water Act).

The Washington Department of Ecology (Ecology) has tentatively determined to issue a permit to AK-WA Incorporated for discharge of stormwater and drydock wastewater to Hylebos Waterway, subject to certain effluent limitations and other conditions necessary to carry out provisions of state and federal law.

Interested persons are invited to submit written comments regarding this proposed permit. Comments should be submitted within thirty (30) days of the date of issuance of the public notice for this application.

Washington Department of Ecology
Southwest Regional Office
Attention: Mr. Michael Herold
7272 Cleanwater Lane, LU-11
Olympia, Washington 98504

If the comments received indicate significant public interest in the proposed permit or if useful information could be produced thereby, the director may require that a public hearing on the draft permit be held. Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing.

The application, proposed permit, and related documents are available for review and copying between 8:30 a.m. and 4:30 p.m. weekdays at the above address. A copying machine is available for use at a nominal charge.

1. Background

AK-WA Incorporated (AK-WA) has been repairing and rebuilding vessels at its present location at the mouth of Hylebos Waterway since 1986. Zidell Marine and Tacoma Boat previously conducted similar operations on this site. The site has been used by the shipbuilding and repair

industry for over 70 years. Current property owner is the Port of Tacoma.

In a typical month, four steel-hulled vessels are repaired or converted at the shipyard. Activities include welding, cutting, machining, sandblasting, painting, carpentry, pipefitting, and electrical wiring. The AK-WA facility has not previously had an NPDES permit.

The AK-WA plant site covers approximately four acres (Figure 1). Their facility includes a wooden dry dock, which can handle vessels up to 10,000 tons. Dockside facilities allow repair of vessels up to 1,000 feet in length. Other facilities are the major plate and fabrication areas, marine construction, warehouse, paint storage and offices within Building #588, outfitting docks, grit blasting and paint spray areas, and lumber storage areas. Shops providing services at the shipyard include fabrication, paint, electric, machine, carpentry, and pipe fabrication. Repair of small vessels can be accomplished on the shoreside areas of the facility.

2. Relationship to the Commencement Bay Nearshore/Tideflats Superfund Site

The AK-WA facility is located within the boundaries of the Commencement Bay Nearshore/Tideflats (CB/NT) Superfund Site. Ecology and the Environmental Protection Agency (EPA) have completed the CB/NT remedial investigation (August 1985) and the feasibility study (February 1989). The remedial action plan for contaminated sediments and source control within the site is documented in a Record of Decision (ROD), which was signed on September 30, 1989.

The AK-WA facility is located on the southwest bank of Hylebos Waterway, which is located within the boundaries of the Mouth of the Hylebos Waterway Problem Area in the CB/NT site. The priority chemicals for this problem area include pollutants such as lead, copper, zinc and chlorinated hydrocarbons that have been detected in stormwater from the AK-WA facility and in hydroblasting discharges from other shipyards. .

Under this NPDES permit, BMPs are required first to control discharges of priority chemicals in stormwater from this facility, and then monitoring will be conducted to ensure the effectiveness of BMPs. If monitoring indicates that pollutants in stormwater are not controlled by the measures, waste treatment systems such as settlement basins, sand filters, and/or oil/water separators shall be installed. This approach is consistent with the ROD, which states that implementation of BMPs is the main form of remedial action at shipyards.

Collection and treatment methods to reduce metals and total solids loading in hydroblasting wastewater have been investigated and found to be feasible at other drydock facilities. Therefore, a compliance schedule to explore and implement adequate treatment of hydroblasting wastewater is included in this permit under special conditions.

The issuance of this NPDES permit provides a monitoring mechanism in order to determine if these actions are sufficient to prevent recontamination of sediments in Hylebos Waterway from AK-WA discharges.

3. Description of Discharges

A. Stormwater

The entire AK-WA site is paved, and precipitation that collects as surface water on-site is collected in three storm drain systems. Those systems discharge to Hylebos waterway via Outfalls 002, 003,

and 004 (Figure 1). The stormwater discharge becomes contaminated due to contact with pollutants in materials that have been deposited on the ground at the facility. The types of materials that may accumulate at shipyards include spent abrasive blasting grit; fresh anti-foulant and anti-corrosive paint overspray; various cleaners, solvents, and anti-corrosive compounds; paint chips; scrap metal; welding rods; wood; plastic; and miscellaneous solid waste (e.g., paper, glass, municipal refuse). Air compressors and heavy equipment are sources of oil to the systems.

Stormwater system 002 services a small area of the shipyard outside the main office. The system 002 drainage basin includes the current hazardous waste containment area. The system is approximately 50 ft in length and has one catch basin. Outfall 002 is exposed below Pier 25 at low tide and discharges to the waterway.

Stormwater system 003 serves the area near the machine shop. The system is approximately 125 ft in length with two catch basins. Outfall 003 is also exposed at low tide and discharges beneath Pier 25 into the waterway.

The drainage basin for stormwater system 004 includes areas of the shipyard near the fabrication areas, paint shop and spray building, sand blast shed and shoreside ship repair area. The system is approximately 350 ft in length with six catch basins. Outfall 004 is exposed at low tide and discharges to Commencement Bay under Pier 24.

Stormwater samples that were collected at the shipyard in March 1991 were found to contain metals, volatile organic compounds, and oil and grease.

Copper and zinc concentrations found in effluent from each of the three storm drain systems exceeded marine acute and chronic water quality criteria. A single concentration of lead exceeded the marine acute water quality criteria in stormwater system 003. Zinc and copper are common components of marine paints.

The volatile organic compounds, xylene and methyl ethyl ketone (MEK), were found in effluent from system 004 at AK-WA. Xylene is a common component in paints, varnishes, and sealants, and MEK is a solvent commonly used to remove paint. Xylene and MEK have both been identified as components in waste thinner that has been used at AK-WA.

Benzene, toluene, xylene and trichloroethane were found in system 002. System 002 receives spillage from the handling of waste solvents at a solvent reclamation still, as well as spillage or runoff from the hazardous waste containment area.

Data collected during the stormwater characterization study at AK-WA are summarized below:

Chemical Concentrations (mg/L metals; ug/L organic compounds)

	<u>Outfall Systems</u>			<u>Marine Water Quality Criteria</u>	
	002	003	004	Acute	Chronic
Copper	0.4	1.0	0.5	0.0029	0.0029
Lead	0.032	0.250	0.048	0.14	0.0056
Zinc	1.0	2.3	4.3	0.095	0.086
Benzene	3.4	<0.5	<0.5	NA	NA
Toluene	24.2	<0.5	<0.5	NA	NA
MEK	<100	<100	2870	NA	NA
Xylenes	52.7	15.6	3.9	NA	NA
Trichloroethane	33.1	1.8	0.8	NA	NA

B. Drydock Discharges, Outfall 001

Vessels are repaired in the drydock. The wooden two-part drydock has external dimensions of 117 ft wide, 493 ft long, and 14 ft high. The drydock is cleaned of spent grit and materials to the maximum extent practicable prior to flooding of the drydock to float the repaired vessel. This operation is termed "undocking."

The weight of water pumped to ballast tanks to sink the drydock and float the vessel approximately equals the weight of the vessel to be undocked. This water represents the volume of water pumped out of the ballast tanks to initially raise the vessel and drydock at the time of "docking." There are no additives to ballast water, no contact with process wastes, and a relatively short time period of holding in ballast tanks. Ambient water is moved through the ballast tanks and therefore the quality of pumped water, though large in volume, is not a concern for the discharge permit.

The undocking of a vessel does involve dispersion of any wastes and materials remaining on the drydock deck. Material can be removed to minimize such dispersion. The drydock has a 12 inch slope downward from the longitudinal center towards the outside wing walls. This configuration results in some wastes being conveyed by water movement on the deck to the outside edges where small retaining dams restrict further dispersal of solids off the deck and into the receiving water.

Discharges from the drydock also include hydroblasting wastewater. Hydroblasting using heated domestic water is performed to clean hulls of organic debris and encrusting organisms prior to initiation of repair work on the hull. Some paint may be removed from the hull. Volumes and quality of the wastewater vary according to the size and degree of fouling on each hull. Investigation of hydroblasting wastes during the preparation of NPDES Permit # WA-003093-7 for Duwamish Shipyard indicated that toxic metals in toxic amounts may be generated during hydroblasting operations, resulting in violations of the marine acute toxicity criteria if applied at point of discharge. Turbidity may also be affected.

C. Bilge, Sanitary and Solid Wastes

The shipyard infrequently pumps and disposes of bilge, ballast, or gray waters from vessels. Any bilge water from pier-side vessels

is removed by contract tank cleaners at dockside. Wastes are removed off site by the contractors. Air pressure rather than water is used to test repairs to vessel tanks.

Sanitary wastewater from this facility is discharged to the City of Tacoma wastewater treatment plant.

Solid waste generated at the site includes blasting grit. This material is currently transported off-site for use in cement-making. Scrap metal to be recycled is stored on-site in dumpsters. Sludges from parts cleaning tanks are removed on a regular basis.

A solvent reclaiming still is used to reclaim solvents, mainly MEK. Other solvents are stored in drums until transport off-site by a solvent recycler. Waste paint residues are allowed to dry in buckets, and are then disposed of as a solid waste.

4. Receiving Water

Stormwater, undocking and hydroblasting runoff from the AK-WA facility is discharged to Hylebos Waterway-Inner Commencement Bay. Hylebos Waterway and Inner Commencement Bay are classified by the Washington State Water Quality Standards as Class B marine waters.

The applicable receiving water quality standards are those adopted by Ecology and approved by the U.S. Environmental Protection Agency (EPA) Regional Administrator pursuant to Section 303 of the Clean Water Act. The applicable standards are contained in Chapter 173-201-045 WAC.

General water quality parameters that could be affected by the stormwater and other AK-WA discharges include pH, turbidity, and aesthetic values from sediment, paints and oil and grease contamination.

Per Chapter 173-201-047 WAC, toxic substances shall not be introduced above natural background levels in waters of the state which may adversely affect characteristic water uses, cause acute or chronic conditions to the aquatic biota, or adversely affect public health, as determined by the Department.

The applicable water quality standards for toxic substances per 173-201-047 WAC should be maintained by the adherence to the BMP's listed in the permit and implementation of adequate treatment of hydroblasting wastewater. In the event that it is determined that water quality standards are being violated or the potential for violation becomes evident, then Ecology will impose new or additional discharge limits for the particular parameter or an indicator. The receiving water monitoring coinciding with a stormwater sampling event, drydock sampling results, and waterway monitoring by Ecology or other agencies will be adequate to detect possible Water Quality Standard violations.

5. Flow Rates

Discharge to Hylebos Waterway is the result of precipitation runoff (stormwater) from the entire 4 acre AK-WA facility. Flow volumes vary depending on storm events and precipitation. During a 10-year rainfall event, the peak flow rate was estimated to be approximately 6.8 cubic feet per second, using the Rational Method and the statistical 10-year rainfall intensity of 1.9 in/hr for Tacoma. The total daily stormwater volume for the 10-year event was estimated to be approximately 40,500 cubic feet (303,000 gallons). In Tacoma, the 10-year storm event produces approximately 3.1 inches of rainfall over a 24-hour period.

Total yearly stormwater runoff from the AK-WA facility has been estimated at 1,670,000 gallons per year.

As a requirement for this permit, the Permittee is required to estimate the annual quantity of stormwater discharged via each outfall at the facility.

The total yearly hydroblasting wastewater volume has been estimated at 140,000 gallons per year. Hydroblasting wastewater flows will be addressed as a part of an engineering report specified in the compliance schedule for implementation of adequate treatment.

6. Basis of Limitations

The Clean Water Act requires that Best Available Pollutant Control Technology (BAT) or Best Conventional Pollutant Control Technology (BCT) be in effect no later than July 1, 1984 (40 CFR Part 125.3). Permit limitations must either reflect appropriate promulgated limitations or, when such regulations are not yet available, be based on Best Professional Judgment (BPJ). Pursuant to Section 402(a)(1) of the Clean Water Act, BPJ is used to determine BAT/BCT. As there are no promulgated effluent limitations guidelines or BAT/BCT regulations establishing limits for the shipbuilding and repair point source category, BPJ was used to determine the BAT/BCT limits and requirements of the permit.

All known, available, and reasonable methods of treatment (AKART) to control contaminants in the applicant's stormwater runoff will be used. For stormwater, AKART is defined by implementation of Best Management Practices (BMPs), followed by water quality monitoring to ensure the effectiveness in controlling pollutant discharges and if BMPs are not effective in controlling pollutants then the application of effective treatment technologies.

Hydroblasting discharges which result in violations of water quality standards are prohibited by the terms of the permit. All known, available and reasonable methods of treatment (AKART) have not yet been established conclusively for hydroblasting discharges from drydocks. The permittee will be placed on a compliance schedule to ascertain and implement AKART for the hydroblasting operation at AK-WA. The implementation of such methods will be adequate, along with BMPs and other interim measures, to prevent violations of water quality standards. Predicted hydroblasting wastewater flows of 12,000 gallons per month may be successfully dispersed in the average current of 11cm/second present at the mouth of Hylebos waterway when discharge rates of treated wastewaters are controlled.

Priority pollutant and other metals, volatile organic compounds, and oil and grease are potentially discharged by the AK-WA facility and are to be controlled by the effluent limitations, monitoring requirements, and Best Management Practices established by this permit.

Included herein is the "Rationale for the Selection of Pollutant Parameters" section of the Draft Development Document for Proposed Effluent Limitations Guidelines and Standards for the Shipbuilding and Repair Point Source Category (EPA 440/1-79/76-b) which identifies the following pollutant parameters as those potentially released by shipyard activities and which have the potential to be discharged to receiving waters.

A. Conventional Parameters

Effluent limits were established for oil and grease in discharges from Outfalls 002, 003, and 004 and the drydock undocking discharges. BPJ was used to determine BCT for the stormwater discharges. Oily stormwater runoff or wastewater can be treated with an oil-water separator, or pass through oil and sand collection tanks. These treatment technologies are capable of reducing the oil and grease levels to 10 mg/L. The hydroblasting and drydock discharge limits are based on the ability to minimize oil, paint, and sediment discharges through BMP's.

Effluent limits were established for total suspended solids (TSS) in discharges from Outfalls 001, 002, 003, and 004, based on the AKART determination established in the previously issued shipyard wastewater discharge permit number WA-003093-7. The drydock undocking discharge limit for TSS is based on the ability of the specified BMP's to reduce contaminants on the drydock prior to undocking. The Permittee is also required to monitor pH and flow in the discharges during sampling events.

B. Priority Pollutant and Other Chemicals

The EPA Development Document for Shipbuilding and Repair recognizes the high potential for metals to be found in shipyard discharges, but study results indicate that such discharges may not be amenable to quantitative measurements for establishing national effluent limitations (pp. 70-77). In lieu of national effluent limitations, the EPA study results suggested that pollutant discharges shall be controlled primarily by BMPs. However, the EPA study did not address whether BMPs would be effective in ensuring that discharges did not violate state water quality standards in the receiving environment.

As one tool to indicate whether the BMPs and BMP plan requirements are being followed and are effective at the shipyard, chemical monitoring requirements are included in the permit. Chemical monitoring results will be used to assess concentrations of metal and volatile organic compounds being discharged via stormwater runoff, hydroblasting wastewater and during undocking and to evaluate whether water quality standards are being met at the point of discharge.

Effluent limits for hydroblasting discharges have been established based on the water quality criteria of a maximum 2.9 ug of dissolved copper per liter of marine water to prevent acute toxicity to bivalve embryos. Due to federal regulations and the potential for dissolution of metals from particulates in Hylebos Water, total recoverable methods of analysis and limits are established. The functional limit for metals is the Contract Required Detection Limit (CRDL) established by EPA whenever the water quality criteria is lower than the CRDL. Other metal limits are also based on the Water quality Criteria of Chapter 173-201-047 WAC. A compliance schedule for achieving the effluent limits, satisfying Water Quality Standards and determining AKART is included in the permit.

Monitoring requirements have not been established for semivolatile organic compounds and PCBs because those compounds are not probable components of AK-WA's wastestream, they were not identified as potential pollutants of concern in the EPA

Development Document, and PCBs were not detected in stormwater data submitted by AK-WA.

The Permittee shall submit a new application or supplement to the previous application where facility or process modifications or changes result in new or substantially increased discharges of pollutants or a change in the nature of the discharge of the pollutants.

7. Monitoring of Drydock Discharges

Discharges from the drydock will be monitored during each day of undocking for the first three years of the permit by compositing three grab samples from the down current side of the drydock during the undocking procedure. The sample containers may be secured by some device to the deck or wall of the drydock so that each sample container is filled as the deck submerges. The individual samples may then be retrieved for compositing. An additional sample must be gathered to satisfy the protocol for Oil and Grease testing. Quantifying of metals will be performed for both the total recoverable and the dissolved phases. This will enable Ecology to establish adequate permit limits for the undocking procedure and to verify that BMPs are protective of the water quality standards. Monitoring may be modified during the third year of the permit cycle.

Hydroblasting discharges from the drydock must be monitored weekly whenever hydroblasting (or hull washing which generates a wastestream off the drydock) is performed. Grab samples will be composited to represent the average discharge from the hydroblasting being conducted on the particular hull chosen for the weekly monitoring. Total suspended solids and total recoverable copper, lead and zinc will be determined.

These parameters will be adequate to enable AK-WA to evaluate alternative methods of treatment or prevention of hydroblasting discharges. The compliance schedule to implement all known, available and reasonable methods of treatment prior to discharge (AKART) specifies that an engineering report be submitted within six months after issuance of the permit. Adequate data should be generated to meet this target.

8. Monitoring of Stormwater

Stormwater in each system must be monitored monthly for the first six months of the permit by taking composite stormwater samples either at each outfall or at the catch basin nearest each outfall. Sampling is required in each system to characterize stormwater discharge. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches and at least 72 hours from the previously measurable (greater than 0.1 inch rainfall in 24-hr period) storm event. The first flush criteria are established in order to allow potential pollutants to accumulate prior to the flushing that occurs when stormwater mobilizes and transports any particulate and liquid material through the stormdrain system. The Permittee shall make all reasonable efforts to sample the first flush of suitable rain events. The composite sample shall either be flow-weighted or time-weighted. Composite samples shall be taken with a continuous sampler or as a combination of a minimum of three sample aliquots taken within each period of discharge, with each aliquot being separated by a minimum period of fifteen minutes. A single grab per event is required for volatile organic compound analyses. Monthly sampling will not be required if there are no measurable rainfalls, but the stormwater sampling schedule shall be adjusted, such that data from the first six months with measurable rain events that meet the first flush criteria

are collected and submitted by the Permittee. At this level of monitoring, sufficient data will be obtained to adequately assess discharge characteristics.

After the sixth month of monitoring data is submitted, Ecology will review the monitoring results. If metal concentrations in the stormwater discharge exceed amounts specified in Chapter 173-201 WAC, which follows the EPA Quality Criteria for Water of 1986, or if volatile organic compounds are detected in toxic amounts in the stormwater, the Permittee must continue monthly monitoring of the stormwater and submit an engineering report to Ecology discussing alternative methods for treatment of the stormwater (per Chapter 173-240 WAC). It is expected that the discharge of solvents shall be controlled by adherence to the BMPs of the permit. There are no known sources of solvents on-site that could not be controlled by BMPs. For example, because the site is paved, there are no known portions of the property where soils (which could be possibly contaminated with solvents) could be discharged via stormwater runoff to the storm drain system. Also, sediments in the storm drain lines should be removed prior to the effluent sampling event, which would eliminate historical catch basin sediments as a potential solvent source.

At this time, Ecology will not consider a dilution zone at the storm drain outfalls because, during low tides, the stormwater effluent discharges at end-of-pipe without the benefit of a diffuser directly into the intertidal area, which could impact the health of marine organisms.

If in the future, Ecology's guidelines or policy are changed to allow a dilution zone, effluent limits for priority pollutant chemicals may be added to the permit following receipt and review of treatability, mixing zone, diffuser options, and receiving environment studies.

If metals or volatile organic compounds are not discharged in toxic amounts, upon notification from Ecology, the Permittee will only be required to monitor for these parameters in stormwater effluent four times/year (i.e., during the first flush of measurable rain events in Fall, Winter, Spring, and Summer). This quarterly chemical monitoring is required as one tool to indicate whether the BMPs and BMP plan requirements continue to be followed and are effective.

It is expected that the effluent permit limits shall be protective of human health and the environment. New information regarding effects on human health or the environment may result in reopening of this permit.

9. Receiving Water Monitoring

Coinciding with the second year of the stormwater effluent sampling event, receiving water sampling shall be conducted. The Permittee is directed to collect receiving water samples at an incoming or slack tide shoreward of the drydock and near the terminus of each stormwater outfall, and the samples shall be analyzed for priority pollutant metals and volatile organic compounds. A written report including the analytical results shall be submitted to the Department within 90 days after sampling occurs.

10. Toxicity Monitoring

Toxicity testing (biomonitoring) of the effluent is required by the 1989 Puget Sound Water Quality Management Plan. The Permittee shall conduct 48-hour acute toxicity testing using an 80% concentration of the stormwater effluent at a frequency of four times per year for the first

year of the permit (Fall, Winter, Spring, and Summer) and once every year in the Spring thereafter for the duration of the permit. Biomonitoring is required in each storm drain system. For the first four test periods, two species tests are required. Those species are the fathead minnow (*Pimephales promelas*) and a water flea (*Daphnia pulex*). After the first four test periods, only the most sensitive species is required to be tested for the remainder of the permit term. Acute toxicity testing results will be used from both the water quality-based and technology-based standpoint to evaluate the need for limits, particularly for those compounds for which no water quality standards exist. Because the discharge is not continuous (i.e., discharge occurs only as a result of precipitation), chronic toxicity monitoring is not required at this time.

Effluent samples collected for the acute toxicity testing and the chemical (i.e., metals, volatile organic compounds) monitoring samples shall be collected on split samples rather than simultaneous samples of effluent. The split samples shall be composite samples that are collected over the first two hours of a first flush rain event. As part of the normal effluent sampling schedule, conventional parameters (i.e., pH, oil and grease) shall be measured at the time of toxicity sampling.

11. Sediment Monitoring

Within 18 months of the issue date of this permit, sediment monitoring shall be conducted in accordance with the Sediment Quality Standards, Chapter 173-204 WAC. The Permittee is directed to prepare a site-specific study plan addressing characterization of sediment in the vicinity of the stormwater outfalls. The plan shall include a minimum of one subtidal marine sediment core (0-90 cm) that shall be located immediately offshore of each Outfall, and a bioassay of surface (0-2 cm) sediments using *Rhepoxynius abronius*. The chemical analysis will include analyses for: priority pollutant metals, certain semivolatile organic compounds, certain volatile organic compounds, total organic carbon, total solids, and grain size. Sampling and analysis shall follow the EPA Puget Sound Estuary Program protocols and procedures described in the Appendix A of the Integrated Action Plan for the Commencement Bay Nearshore Tideflats Superfund site.

12. Best Management Practices Plan and Requirements

The shipbuilding and repair industry is such that using numerical effluent limitations as the sole pollutant control method is impractical and ineffectual as they are difficult to apply in a manner that can be monitored consistently. Therefore, a BPJ determination has been made for the control of effluent discharges of this facility to achieve BCT and BAT through the use of Best Management Practices (BMPs) as the primary control technology, pursuant to 40 CFR Part 125 (K) and the NPDES Best Management Practices Guidance Document of August 1980. This determination incorporates the recommended BMPs set forth in the Draft Development Document for Proposed Effluent Limitations for the Shipbuilding and Repair Point Source Category, EPA 440/1-79/b, December 1979. The BMPs are used as a BPJ tool to control effluent discharge pursuant to Sections 304 and 402 of the Federal Clean Water Act.

A. BMP Plan

A BMP Plan is required of the Permittee to establish measures and practices to control discharges. The BMP Plan is intended to provide a basis for the facility to set up BMP practices in conjunction with the specific BMPs of the permit that ensure the facilities operation prevents or minimizes the discharge of

pollutants. The BMP plan shall be submitted within 3 months of permit issuance to Ecology for review and approval.

A specific requirement of the plan is to record the method of blasting and the frequency of hydroblasting to establish a record of those operations that may contribute to discharge and BMP incidents*, and which may not be controlled by the specific BMPs of the permit. The BMP Plan requirements to record this information and the additional monitoring requirements of this permit will establish a database of priority pollutant and other metals actually discharged. The results of those practices will be reviewed when Ecology inspections are performed.

*A "BMP Incident" is defined as "a discharge of significant amount of a toxic pollutant or hazardous substance from the ancillary sources subject to BMP regulations."

B. Best Management Practices Requirements

BMPs were developed to achieve pollution control through careful management of the product streams and wastestreams. A BPJ determination was made that the BMPs of the Shipbuilding and Repair Draft Development Document are appropriate control measures for the discharges of this facility. The BMPs of this permit are procedures to prevent and minimize the potential for the release of pollutants to the receiving water. Current feasible pollution controls generally consist of prompt clean up of pollutants, segregation of pollutants, and temporary barriers of plywood sheeting, tarpaulins, and plastic to prevent or minimize the transport of paint, paint overspray, abrasive blasting grit, dust, and detritus to waters of the state.

The following are the BMPs incorporated into the permit. Which, when followed by the Permittee, should ensure that solids, oil and grease, and other potential pollutants will not enter the receiving water:

- BMP A. Control of Large Solid Materials
- BMP B. Control and Clean-up of Paint Dust and Abrasive Blasting Debris
- BMP C. Oil, Grease, and Fuel Spills, Prevention and Containment
- BMP D. Paint and Solvent Use and Containment
- BMP E. Contact of Water and Debris
- BMP F. Maintenance of Hoses and Piping
- BMP G. Bilge and Ballast Water
- BMP H. Chemical Storage
- BMP I. Recycling of Spilled Chemicals and Rinse water

13. Handling of Solid Waste

Spent sandblasting debris and spent grit is to be stored and disposed of in such a way as to prevent its entry or the entry of leachate into receiving waters. All solid waste material shall be handled in such a manner as to prevent its entry into surface waters, and shall be disposed of in an approved manner. A solid waste control plan shall be submitted to the Department within 12 months of permit issuance.

14. Permit Reopener

A permit reopener statement has been included in this permit. If the results of any of the studies discussed above indicate that further action (e.g., additional monitoring or stormwater treatment) is necessary, the permit reopener will allow Ecology to modify existing permit conditions and limitations or establish new conditions or limitations on the basis of monitoring results or other causes consistent with state and federal regulations.

15. Permit Duration

This permit is issued for a period of five (5) years.

16. Special Conditions

- A. The permit prohibits the discharge of sanitary wastes and wastewater from steamcleaning and acid or caustic dip tank operations to waters of the U.S.
- B. The permit requires that owners of vessels in drydock or under repair pier-side are notified of the regulations prohibiting discharge of untreated sewage directly into the waterway. Any ballast water containing solvents, detergents, fuel, or other additives will not be discharged to surface water, unless a state water quality variance has been previously granted by Ecology for each instance.
- C. Within 30 days of permit issuance, the Permittee is required to submit a plan to remove all sediments and sandblasting grit from storm drain catch basins and lines. The plan must include a description of measures that will be taken to ensure that storm drain sediments are not discharged to the waterway during those operations. Within 15 days of plan approval, the Permittee must complete the removal of all sediments and grit from the storm drain system. The Permittee must show that sediments and grit were adequately characterized prior to disposal. A final report must be submitted to the Department within 30 days after the removal is complete.

This permit also requires the inspection of storm drain lines at a minimum of once per month, and solids must be removed as necessary to ensure the interception and retention of solids entering the drainage system. A storm drain log book must be maintained to record all information pertaining to the storm drain inspection program and sediment removal efforts. If BMPs are not completely successful in eliminating blasting grit discharge to the storm drain systems, the Permittee must submit a plan by the sixth month of the permit proposing technology (e.g., sedimentation tanks) for eliminating blasting grit discharge to the waterway.

- D. On a biennial basis, the Permittee shall provide to the Department an estimate of stormwater flow from each storm drain system. A site inspection shall be conducted annually by the Permittee to verify the accuracy of the description of potential pollutant sources, to update or otherwise modify the drainage map to reflect current conditions, and to verify the adequacy of controls to reduce pollutants in stormwater discharges associated with industrial activities. The Permittee shall provide Ecology with all updated information.
- E. The Permittee is required to submit, on an annual basis, a list of significant spills and leaks of toxic or hazardous pollutants that occurred at the facility after the effective date of this permit. Such a list should include a description of materials released, an estimate of the volume of the release, the location of the

release, a description of cleanup measures taken, and measures taken to prevent recurrence.

- F. If required by Ecology, the Permittee shall submit an engineering report, in conformance with WAC 173-240, which will outline options for meeting stormwater effluent permit limits.
- G. The permittee will be required to submit an engineering report in conformance with WAC 173-240 which addresses collection and treatment of hydroblasting wastewater. Construction or implementation of the approved option to meet permit limits should occur within two years.

17. Summary of Compliance Dates

A summary of compliance dates for reports is provided in the permit.

AK - WA Inc.

401 ALEXANDER - BLDG. 9588
TACOMA, WA 98421

STEEL FABRICATION
SHIP REPAIR

TELEPHONE (206) 272-0108
FAX (206) 272-4952

RECEIVED

November 12, 1991

Serial #05-090

Department of Ecology

'91 NOV 20 P1:26

Water Quality Program

Mail Stop PV - 11

Olympia, Washington 98504-8711

ATTN: Mike Herold

Subj: Final report, "Storm drain cleaning"

Dear Mike;

Enclosed you will find the testing results for the grit, sediment and wash water captured during the storm drain cleaning operation conducted in early August 1991.

The services of Ventilation Power Cleaning Inc. were utilized to perform a high pressure flush and vacuum induction method to force all liquids and sediment back to each catch basin. The sediment recovered was placed in storage and samples were taken. The results are attachment (1).

The sediment was disposed of by placing it with our spent blast grit and sent to Ideal Cement for processing.

The liquids recovered were placed in a clean 1000 gallon storage tank and were allowed to settle for approximately eight weeks when samples were taken. The results are attachment (2).

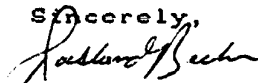
The wash water results were submitted to the Public Works Department requesting permission to discharge to the city sewer (attachment 3). The utility services

MAILING ADDRESS: P.O. BOX 872 . TACOMA, WA 98401

Technical Support Division has reviewed and approved the wash water for discharge (attachment 4). The water was discharged to the sewer system on 11-12-91.

If you should have any further questions please contact me at 272-0108. Thank you.

Sincerely,

A handwritten signature in cursive script, appearing to read "Rocky Becker".

Rocky Becker

Environmental Hazards

**SPECTRA Laboratories, Inc.**

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

August 16, 1991

AK-WA
401 Alexander Bldg. 580
Tacoma, WA 98421
Customer #71365

Sample ID: 7008-018
P.O. #7008-10P
Sample Matrix: Oil
Spectra #60584

Attn: Denny Zimmerman

TCLP Metals, mg/l

Arsenic	(As)	<0.08
Barium	(Ba)	3.18
Cadmium	(Cd)	0.037
Chromium	(Cr)	0.059
Mercury	(Hg)	<0.02
Lead	(Pb)	3.05
Selenium	(Se)	<0.1
Silver	(Ag)	<0.004

TCLP by EPA Method 1311
Metals performed by EPA Method AES 0029

SPECTRA LABORATORIES, INC.


Steven G. Hibbs, Chemist

ATTACHMENT 1



1515 80th St. E.
Tacoma, WA 98404
531-3121

October 18, 1991

AKWA, Inc
401 Alexander, Bldg 588
Tacoma, WA 98421
Attn: Rocky Becker, QA / Safety Director

Dear Sir:

Results of analysis of one water sample taken on 9-30-91 and received 10-1-91 are as follows:

Sample Identification: Storm Drain

<u>Test</u>	<u>Grab Sample</u>
Oil & Grease (mg/l)	2.1

Total Suspended Solids (mg/l)	24.4
-------------------------------	------

<u>Test</u>	<u>Composited Sample</u>
pH (units)	7.3
TR* Copper (ug/l)	190
TR Zinc (ug/l)	1040
TR Lead (ug/l)	120

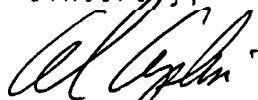
*TR equals total recoverable.

Lab number 89-09046.

P.O. number 7008-018-30P

The tests were performed to Standard Methods for the Examination of Water and Wastewater, 16th Edition.

Sincerely,


Alan Apolin
Chemist

ATTACHMENT 2

AK - WA Inc.

401 ALEXANDER - BLDG. 9588
TACOMA, WA 98421

STEEL FABRICATION
SHIP REPAIR

TELEPHONE (206) 272-0108
FAX (206) 272-4952

October 29, 1991
Serial #05-089

Public Works Dept.
Sewer Utility Division
2201 Portland Ave.
Tacoma, Wa. 98421

ATTN: Troy Naccarato
Subj: Temporary Discharge Operation

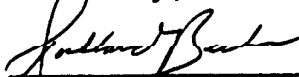
Dear Mr. Naccarato,

AK-WA INC. has been issued an NPDES Permit #WA-004014-2. During the first month of our permit AK-WA was required to clean the storm drain system and capture the wash water. The water has been tested for known and suspected pollutants (see enclosure 1).

AK-WA requests Authorization for a Temporary Discharge operation to the Sewer System utilizing a 4" clean-out to access the sewer system.

If you should have any further questions please contact me at (206) 272-0108, ext. 13. Thank you.

Sincerely,



Rocky Becker
Environmental Hazards

ATTACHMENT 3

MAILING ADDRESS: P.O. BOX 872 . TACOMA, WA 98401



City of Tacoma
Public Works Department

November 4, 1991

AK-WA Inc.
401 Alexander Avenue
Building 9588
Tacoma, WA 98421

Attention: Rocky Becker

Dear Mr. Becker:

The Utility Services Technical Support Division has reviewed and hereby approves the temporary discharge of approximately 800 gallons of rinsewater from the cleaning of your private storm drainage system. This approval is based on the laboratory analysis which has been submitted along with the proposal letter. The discharge shall be through your private 4 inch clean out connected to the sanitary sewer.

We require that you contact this office prior to discharge. If you have any questions or comments, please contact Troy Naccarato at 591-5588.

Sincerely,

Michael P. Price, P.E.
Division Manager
Utility Services Technical Support

MP:TN:pb (WP0913P)

File: Utility Services Technical Support

RECEIVED NOV 7 1991

ATTACHMENT 4

AK - WA Inc.

401 ALEXANDER - BLDG. 9588
TACOMA, WA 98421

**STEEL FABRICATION
SHIP REPAIR**

TELEPHONE (206) 272-0108
FAX (206) 272-4952

RECEIVED

'91 NOV 25 AM

November 21, 1991

Serial # 05 - 095

Department of Ecology

Water Quality Program

Mail Stop PV - 11

Olympia, Washington 98504 - 8711

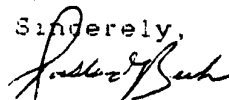
ATTN: MIKE HEROLD

Subj: BMP Plan

Dear Mike,

Please find enclosed (1) copy of our BMP Plan. If you should have any questions please feel free to contact me at 272-0108. Thank you.

Sincerely,



Rocky Becker

Environmental Hazards

BEST MANAGEMENT PRACTICES PLAN

EFFECTIVE DATE: AUGUST 1, 1991

PAGE 1 OF 7

APPROVED:

SCOPE:

AK-WA INC. has adopted specific best management practices in accordance with the Environmental Protection Agency, DOE, and general shipyard BMPS. These management practices have been tailored to AK-WA's specific needs and facilities. The AK-WA repair facility consists of one (1) ten thousand ton lift capacity floating drydock, two (2) five hundred foot long piers located on Commencement Bay and the Hylebos Waterway, a thirty thousand square foot office and shop building and approximately forty thousand square feet of adjacent land. The company engages in the repair and overhaul of commercial and military ocean going vessels.

DRYDOCK MANAGEMENT PRACTICES

The latest treatment and control technology is being applied for drydock operations. These consist of clean up procedures, control and segregation of water flows. The object of the clean up activities are:

- * To improve productivity by removing physical obstacles and impediments to men and machinery working in the dock.
- * To improve safety by eliminating hazardous materials and conditions from the work area.
- * To improve working conditions by eliminating health (and safety) hazards and factors detrimental to moral.
- * To prevent potential contaminants from being discharged into the atmosphere or waterways.

Where control and segregation of water flows within the dock are in use, the objectives are:

- * To segregate sanitary wastes, cooling water, industrial wastes and leakages in order to comply with existing regulations governing sanitation wastes.
- * To comply with existing regulations governing oil spills and discharges.
- * To prevent transport of solids to waterways and contact of waste water with debris in the drydock.

Management practices consistent with obtaining these objectives

is being performed in the drydock.

A. SOLID WASTES

Before docking or undocking any vessel from the drydock, all scrap wood, metal, miscellaneous trash such as paper and glass, industrial scrap and waste such as insulation, welding rods and packaging shall be removed from the drydock floor. The dockmaster is ultimately responsible to ensure this cleaning has been performed satisfactorily.

B. CONTROL OF BLASTING DEBRIS

Dry abrasive blasting, using Kleen Blast media, is the most commonly used method of surface preparation. In all types of surface preparation, the old paint, rust and marine organisms are found in the spent blasting media. Clean up of the spent paint and abrasive shall be accomplished to prevent its entry into the drainage system and surrounding waters. Prior to undocking any vessel, all portions of the drydock floor which are reasonably accessible shall be scraped or broom cleaned of spent abrasive. To accomplish this, a front loader shall be employed to remove all heavy accumulations of sand. Then the entire area shall be shoveled and swept into piles. These shall then be cleaned up by the front loader. When available, the company's power vacuum (Guzzler) shall be employed to vacuum spent abrasives in lieu of sweeping. The vacuuming provides a cleaner surface than broom cleaning. After a vessel has been removed from the drydock, the remaining areas of the dock which were previously inaccessible shall be cleaned to a broom clean condition before the introduction of another vessel. The requirement to clean the previously inaccessible areas shall be waived in emergency situations or when another vessel is ready to be introduced into the drydock within fifteen (15) hours. Particular attention shall be paid to the areas of the basin floor and wing wall intersections. These areas form a channel or trough which control waste water flow and runoff. This area shall be maintained in a broom cleaned condition at all times, thus minimizing waste water contact with spent paint, abrasives and other solid materials. All feasible efforts shall be made to prevent the entrance of spent abrasives, paint and other solids into the surrounding waters. Fire hoses or any other wash down systems shall not be utilized to clean the dock of spent abrasives, paint, oil or other residues. All spent abrasives shall be loaded into suitable containers. Cranes shall move the containers from the drydock to a designated paved area adjacent to the dock. These containers shall not be overfilled or placed on pier planking, so as to prevent loose sand and paint from spilling into surrounding waters. The spent abrasives shall then be moved to a designated controlled storage area. (see I)

C. OIL, GREASE AND FUEL SPILLS

During the dry docking period, oil, grease and/or fuel spills shall be prevented from reaching the drainage water. When fuels or oils are being transferred, either metal drip pans or other containment devices such as plastic sheeting shall be employed

to retain any leakage that may occur. Sufficient oil absorbent pads shall be available at the transfer site to contain and clean up oils in the event of a minor spill. Whenever oil, grease or fuels come into contact with sandblast abrasives, the contaminated material shall be removed immediately and placed in sealed containers for proper disposal. Clean up of all spills shall be carried out promptly after they are detected. Open containers of oil or fuel are prohibited on the drydock unless materials are actually being transferred into that specific container.

D. PAINT AND SOLVENT SPILLS

Paint and solvent spills shall be treated the same as oil spills and segregated from discharge waters. Spills shall be contained until clean up is complete. Mixing of paint and the transfer of solvents shall be carried out in locations and under conditions such that spills shall be prevented from entering drainage systems. Tarps, plastic drop cloths or drip pans are to be utilized where paints are opened, mixed, spray equipment cleaned or any other condition in which paints or solvents could contaminate spent abrasives, surrounding water or dock surfaces.

E. SEGREGATION OF WASTE WATER FLOWS

Sewage: Discharge of untreated sewage is strictly prohibited. All sewage discharged from vessels while in drydock shall discharge into designated sewage holding tanks. Oily waste waters are not to be discharged into sewage holding tanks. Sewage from holding tanks will then be transferred to and transported by licensed commercial haulers, such as Redford or Cascade Sewage, for disposal.

Cooling and Process Water: Uncontaminated discharges such as cooling, boiler, potable and fire protection waters shall be directed so as to minimize contact with spent abrasives, paint and other debris. To accomplish this, all active overboard discharges on a vessel while in drydock shall have hoses connected directly onto the overboard. These hoses shall be lead through the dock as to discharge directly into the dry dock's drainage system.

Oily waste water: All discharges from the vessel such as bilge water, tank cleaning wastes and other contaminated water shall be transferred directly into a designated oily water storage tank. Where feasible, a ship's separator can be utilized to remove oil contaminants from these discharges. This water can then be treated as process water. It is prohibited to discharge oily water onto dock surfaces or surrounding waters under any condition.

Maintenance of Discharge Lines: Leaky connections, valves,

waste water shall be replaced or repaired immediately. Soil chutes and hose connections to the vessel and to receiving containers shall be positive and as leak free as practical.

Water Blasting: Before commencing any water blasting or water wash downs on vessel in drydock, all dock surfaces that may contact resulting wash water shall be broom cleaned of spent abrasives, paint and other contaminants. Caution shall be exercised to ensure that paint removed during water blasting does not enter the dock's drainage system and discharge into surrounding waters. Screens or sumps shall be installed in each drainage trench to collect removed paint if the possibility of discharge with waste water is likely. Debris collected in sumps or screens shall then be disposed of in an appropriate manner.

FACILITY MANAGEMENT PROCEDURES

The following procedures were established for land based facilities to control contamination of runoff, waste waters and the adjacent waterways.

F. SOLID WASTES

All scrap wood, steel, trash and industrial waste such as insulation, packaging and welding rods shall be stored in designated steel containers. Waste shall not be allowed to accumulate on piers or uncontained areas. Scrap shall not be stored or collected in areas where it could contaminate runoff waters or accidentally spill into surrounding waters. Hazardous materials shall not be placed for disposal in solid waste containers. All liquids shall be placed in leak tight containers before being deposited into solid waste containers.

G. OIL STORAGE AND WASTE

Storage of oil drums and containers shall be in an area where appropriate containments or drip pans are utilized. All drums shall be readily identifiable as to contents. Waste oil can be temporarily transferred to drums but storage shall be in designated oily waste tanks. All drums used for oil storage or transfer shall be in sound condition, leak free and kept sealed at all times. When the source or type of waste oil is not known, then samples shall be taken to an approved laboratory for analysis. These materials shall not be transferred, handled or moved until laboratory testing is complete and materials found to be safe.

H. OIL, FUEL AND SOLVENT SPILLS

Spills of oil, fuel, paint and solvent shall be contained until clean up is complete. Spills shall be prevented from reaching drainage waters. Clean up shall be carried out after a spill is detected. Areas where spills are probable or where these

materials are being used, shall be equipped with necessary clean up materials on site. Spills shall not be washed or

flushed down any drain or into surrounding waters.

I. ABRASIVE BLASTING DEBRIS

Spent blasting abrasives and paint shall be stored in a designated contained area. This area shall be segregated from waste water and runoff channels. The contained area shall be covered with tarps as necessary to prevent leaking or washing of containments into drains or adjacent water. As spent sand and paint are being transferred from the drydock to the storage area, care must be exercised to prevent sand from spilling out of transfer containers. Before spent sand is sent out for final disposal, a representative sample shall be sent out for an E.P. toxicity analysis by a qualified laboratory. The analysis shall provide a basis for determining the proper disposal conditions and locations.

J. PAINT AND SOLVENT DISPOSAL

Various paint solvents, thinners and paint waste shall be stored in water tight steel drums. Drums shall be clearly marked as to contents and flammability. AK-WA recycles all waste solvent in house. All recycled solvents shall be stored in steel drums of good condition with sealable tops and marked as to contents. Paint wastes removed by recycling shall be stored for disposal. As appropriate, the waste shall either be allowed to solidify for commercial disposal or sent to an approved waste disposal company such as Sol-Pro, (see emergency numbers). The paint manufacturers representative can be contacted or the Material Safety Data Sheets for the particular product can be referred to in making a proper disposition of waste paints.

K. MISCELLANEOUS HAZARDOUS PRODUCTS

Numerous products containing hazardous materials can be found throughout the repair complex. Material Safety Data Sheets on all hazardous products are available through the safety office. Material Safety Data Sheets not only note the hazards of a material but list safety precautions, first aid treatment and proper disposal. No chemicals, oil, acid, caustics or solvents are to be washed or poured directly into storm drains, sewer lines, surrounding waters or adjacent property. The safety department is responsible to provide disposal information on any hazardous material. The following emergency numbers can be used for spills or information on specific materials.

Disposal	Industrial Services	671-7035
Disposal	Chemical Processors	627-7568
Disposal	Sol-Pro	627-4822
Clean up	Le Tracon Environmental	762-8728
Clean up	Airo Services	383-4916
Oil Spills	West Coast Containment	922-7036
Oil Spills	Crowley Environmental Services	922-0242
Information	Hazardous Substances Info	1-800-633-7585
Information	Department of Ecology	753-2353
Information	Dept. of Labor & Industries	593-2235

PIER 25

DRYDOCK
"OUTFALL 001"

PROPOSED WASH
SLAB W/OILY-
VIA THE SEPTIC

PIER 24

PIER 23

OUTFALL 003
OUTFALL 002

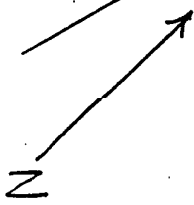
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SHED

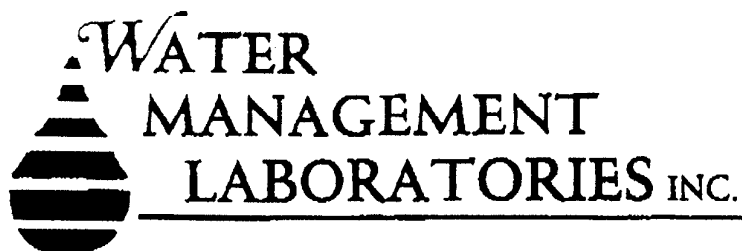
500

500

500 = STORM DRAIN
--- FUTURE FLOW
--- HIGH FLOW
--- STORM
SYSTEM
BOUNDARY

AK-WA INC
STORM DRAIN SYSTEM SURFACE FLOWS
11-27-90





1515 80th St. E.
Tacoma, WA 98404
531-3121

December 16 1991

AKWA, Inc
401 Alexander, Bldg 588
Tacoma, WA 98421
Attn: Rocky Becker, QA / Safety Director

Dear Sir:

Results of analysis of three surface water samples taken 11-6-91 are as follows:

Vessel ID: Stormwater Discharge from outfalls A(002), B(003), & C(004)

Test	Composite of Samples A B & C	Grab Samples		
		A	B	C
Oil & Grease (mg/l)	---	3.9	11.9	3.4
Total Suspended Solids (mg/l)	---	27	254	69
pH (units)	6.6	---	---	---
TR* Mercury (ug/l)	less than 1	---	---	---
TR* Copper (ug/l)	565	---	---	---
TR* Zinc (ug/l)	3100	---	---	---
TR* Lead (ug/l)	less than 100	---	---	---
TR* Nickel (ug/l)	less than 100	---	---	---

*TR equals total recoverable.

The tests were performed to Standard Methods for the Examination of Water and Wastewater, 16th Edition.

VOLATILE ORGANIC COMPOUNDS

Compound	Outfall 002 (ug/l)	Outfall 003 (ug/l)	Outfall 004 (ug/l)
Vinyl chloride	less than 0.5	less than 0.5	less than 0.5
1,1-Dichloroethene	less than 0.5	less than 0.5	less than 0.5

AKWA, Inc
December 16, 1991
Page 2

Compound	Outfall 002 (ug/l)	Outfall 003 (ug/l)	Outfall 004 (ug/l)
1,1,1-Trichloroethane	less than 0.5	less than 0.5	less than 0.5
Carbon tetrachloride	less than 0.5	less than 0.5	less than 0.5
Benzene	less than 0.5	less than 0.5	less than 0.5
1,2-Dichloroethane	less than 0.5	less than 0.5	less than 0.5
Trichloroethene	less than 0.5	less than 0.5	less than 0.5
1,4-Dichlorobenzene	less than 0.5	less than 0.5	less than 0.5
Bromodichloromethane	less than 0.5	less than 0.5	less than 0.5
Bromoform	less than 0.5	less than 0.5	less than 0.5
Bromomethane	less than 0.5	less than 0.5	less than 0.5
Chlorobenzene	less than 0.5	less than 0.5	less than 0.5
Chloroethane	less than 0.5	less than 0.5	less than 0.5
Chloroform	less than 0.5	less than 0.5	less than 0.5
Chloromethane	less than 0.5	less than 0.5	less than 0.5
Dibromochloromethane	less than 0.5	less than 0.5	less than 0.5
1,2-Dichlorobenzene	less than 0.5	less than 0.5	less than 0.5
1,3-Dichlorobenzene	less than 0.5	less than 0.5	less than 0.5
1,1-Dichloroethane	less than 0.5	less than 0.5	less than 0.5
trans-1,2-Dichloroethene	less than 0.5	less than 0.5	less than 0.5
1,2-Dichloropropane	less than 0.5	less than 0.5	less than 0.5
1,3-Dichloropropane	less than 0.5	less than 0.5	less than 0.5

AKWA, Inc
December 16, 1991
Page 3

Compound	Outfall 002 (ug/l)	Outfall 003 (ug/l)	Outfall 004 (ug/l)
2,2-Dichloropropane	less than 0.5	less than 0.5	less than 0.5
1,1-Dichloropropene	less than 0.5	less than 0.5	less than 0.5
cis-1,3-Dichloropropene	less than 0.5	less than 0.5	less than 0.5
trans-1,3-Dichloropropene	less than 0.5	less than 0.5	less than 0.5
Ethylbenzene	less than 0.5	less than 0.5	less than 0.5
Methylene chloride	less than 0.5	0.53	0.51
1,1,1,2-Tetrachloroethane	less than 0.5	less than 0.5	less than 0.5
1,1,2,2-Tetrachloroethane	less than 0.5	less than 0.5	less than 0.5
Tetrachloroethene	less than 0.5	less than 0.5	less than 0.5
Toluene	less than 0.5	less than 0.5	less than 0.5
1,1,2-Trichloroethane	less than 0.5	less than 0.5	less than 0.5
Trichlorofluoromethane	less than 0.5	less than 0.5	less than 0.5

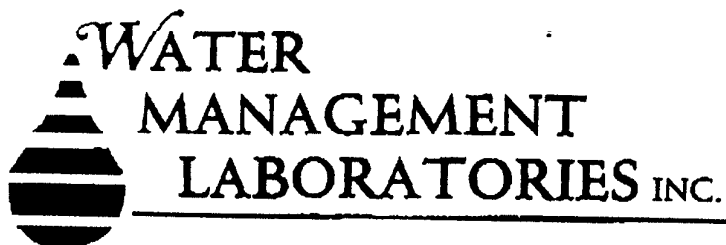
Lab Number 89-09453

PO # 7008-017-29P

Samples were analyzed according to EPA 40 CFR Part 136 Method 801 and 602.

Sincerely,

Alan Applin
Alan Applin
Chemist



1515 80th St. E.
Tacoma, WA 98404
531-8121

January 24, 1992

AKWA, Inc
401 Alexander, Bldg 500
Tacoma, WA 98421
Attn: Rocky Becker, QA / Safety Director

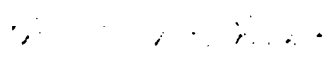
Dear Sir:

In regards to the reported dated December 16, 1991 on the Volatile Organic Compounds. We reported the results out as mg/l this was strictly a report preparation error. Results were performed and should have been reported out as ug/l.

A corrected report is attached.

We apologize for the inconvenience this may have caused you.

Sincerely,


Chris T Stokes
Administrative Assistant

FAX COVER SHEET

DATE: 1-27-92
TIME: 0745
FAX #: 253-8537

TO: DCE

ATTENTION: Mike Herold
TITLE: DEPARTMENT:

REFERENCE: One Helium 1-24

NUMBER OF PAGES TO FOLLOW: 4

FROM: Rocky Becker

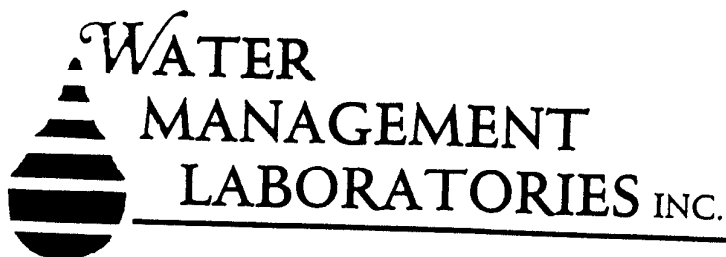
TITLE: DEPARTMENT:

MESSAGE: Connected report of WCC's

Please contact: on extension if you experience any difficulties with this transmission. Thank you!

Have a nice day!





1515 80th St. E.
Tacoma, WA 98404
531-3121

February 10, 1992

AKWA, Inc
401 Alexander, Bldg 588
Tacoma, WA 98421
Attn: Rocky Becker, QA / Safety Director

Dear Sir:

Results of analysis of one water sample taken on 1-23-92 and received 1-27-92 are as follows:

Sample Identification: Rainwater Bldg 9588

<u>Test</u>	<u>Grab Sample</u>
Oil & Grease (mg/l)	1.3
Total Suspended Solids (mg/l)	0.5

<u>Test</u>	<u>Composited Sample</u>
pH (units)	5.6
TR* Copper (ug/l)	90
TR Zinc (ug/l)	240
TR Lead (ug/l)	less than 100

*TR equals total recoverable.

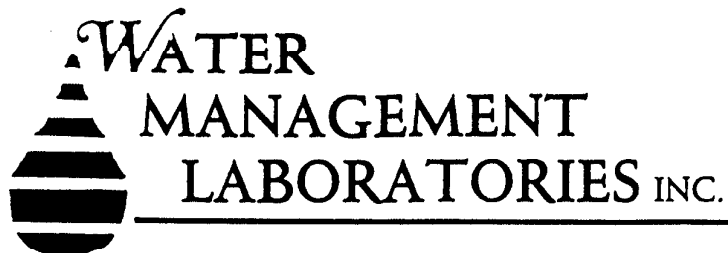
Lab number 89-10073.

P.O. number 7008-007-2022P

The tests were performed to Standard Methods for the Examination of Water and Wastewater, 16th Edition.

Sincerely,

Frank Monteith
Chemist



RECEIVED MAR 03 1992

1515 80th St. E.
Tacoma, WA 98404
531-3121

February 25, 1992

AKWA, Inc
401 Alexander, Bldg 588
Tacoma, WA 98421
Attn: Rocky Becker, QA / Safety Director

Dear Sir:

Results of analysis of one water sample taken on 1-27-92 and received 2-10-92 are as follows:

Sample Identification: Rainwater

<u>Test</u>	<u>Grab Sample</u>
Oil & Grease (mg/l)	1.1
Total Suspended Solids (mg/l)	2.2
pH (units)	5.6
TR* Copper (ug/l)	50
TR Zinc (ug/l)	190
TR Lead (ug/l)	less than 100
Dissolved Copper (ug/l)	less than 10

*TR equals total recoverable.

Lab number 89-10199.

P.O. number 7008-004-2025P

The tests were performed to Standard Methods for the Examination of Water and Wastewater, 16th Edition.

Sincerely,

George Schonhard
Chemist

Chuck Clarke
XXXXXXXXXXXXXXXXXXXX
CHRISTINE O. CRECHINE
Director



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7272 Cleanwater Lane, LU-11 • Olympia, Washington 98504-6811 • (206) 753-2353

March 24, 1992

Oscar Fred Olson
AK-WA, Inc.
P.O. Box 872
Tacoma, WA 98401

Dear Mr. Olson:

This letter is intended to convey the concerns of the Washington State Department of Ecology in regard to a possible violation of Condition 3.9 of the NPDES permit issued to AK-WA, Inc. Ecology Spill Responder Dick Walker documented a discharge of blasting wastes into Hylebos Waterway from AK-WA on February 28, 1992. This discharge resulted from a disregard to shipyard Best Management Practices (BMPs). The BMPs for shipyards, which are enforceable under the conditions of the NPDES permit, have been developed by the industry in order to minimize the environmental impact of operations. All shipyards in the state of Washington are expected to follow the BMPs.

Violation of permit-required BMPs are subject to a daily \$10,000 fine and possible revocation of the NPDES permit, which would seriously curtail operations at AK-WA. Other shipyards have experienced financial liabilities when compliance with environmental regulations is deficient.

Ecology is eager to see a demonstration that AK-WA, Inc. is capable of following BMPs at all times of operation. However, experience with other shipyards, and now AK-WA, indicate that nighttime operations are especially troublesome with regard to BMP adherence. The Northwest Regional Office of Ecology is currently conducting nighttime surveillance of shipyards in Elliott Bay and Lake Union, a practice which may become necessary to extend to Commencement Bay. Repeated violations of BMPs will also indicate a need for additional monitoring and extensive training of shipyard personnel.

A plan for addressing the deficiencies in BMP adherence is hereby requested for submittal within thirty days. Measures proposed or implemented to educate the AK-WA workforce and a summary of any disciplinary actions taken to prevent non-compliance with the NPDES permit and other environmental regulations should be forwarded to Michael Herold, SWRO UBAT Permit Manager, P.O. Box 47775, Olympia, Washington 98504-7775.

The NPDES permit was issued to promote improved water and sediment quality in Commencement Bay and reflects the importance of establishing controls over discharge of pollutants. The adherence to BMPs and submittal of records and plans demonstrate a commitment from AK-WA that the shipyard will do its part toward lifting the stigma of "Superfund Cleanup Site" from the Tacoma tideflats. Ecology is willing to do all that we can to assist AK-WA in this effort. If you have any questions regarding this action please call Mr. Herold at (206) 586-6240.

Sincerely,

Megan White
Megan White
Unit Supervisor
Toxics Cleanup Program

MW:MH:dc

AK - WA Inc.

401 ALEXANDER - BLDG. 588
TACOMA, WA 98421

TELEPHONE (206) 272-0108
FAX (206) 272-4952

09 April 1992

Department of Ecology
Water Quality Program
Mail Stop PV-11
Olympia, WA 98504-6811

Attention: Mike Herold

Subject: Best Management Practices

Reference: Letter From Megan White 24 March 1992

Dear Mike:

This letter is to confirm our continued support in implementing all phases of our NPDES permit. We agree that off shift hours have the most potential for violation of compliance procedures. To curtail non-compliance activities, AK-WA has appointed Barb Jackson as our swingshift BMP Compliance Surveyor. Barb has been given the authority to stop production activities which violate our NPDES permit. Barb has experience conducting waste water sampling, is a certified competent person trained in basic marine fire-fighting and has a good general knowledge of ship repair activities. Barb will address deficiencies, educate and implement BMP actions to assure compliance. In addition, Barb has authority to write company procedure violations for non-compliance operations, subjecting employees to possible disciplinary actions which may result in termination.

Addressing the specific incident on 28 February 1992, we discovered that our containment tarp was not installed during the blasting operation. This was simply an oversight and by no way was it an attempt to circumvent any requirements of the NPDES permit. I interviewed our employees who verified small amounts of blast dust floating on the water and have reviewed the square footage of the vessel that was sand blasted. The square footage does not support the severity of discharge that was reported.

It is our opinion therefore, that this discharge was exaggerated beyond reason. As you well know, it takes a trained observer to determine the severity of any release



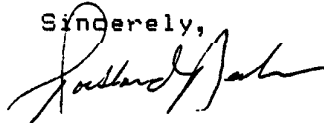
MAILING ADDRESS: P.O. BOX 872 • TACOMA, WA 98401

to the environment. Department of Ecologys' Inspector, Dick Walker certainly qualifies to make such a judgement, yet he observed only small amounts of debris in the water.

In light of the information obtained, such as: square footage blasted, employee reports, and DOE observations, this was a minimal release caused only from an oversight by AK-WA production personnel and was not a disregard to shipyard Best Management Practices.

If you have any questions please feel free to call. I can be reached at (206) 272-0108.

Sincerely,



Rocky Becker
Environmental Director

RB/syd
#05-012

**WASHINGTON STATE DEPARTMENT OF ECOLOGY
ENVIRONMENTAL INVESTIGATIONS AND LABORATORY SERVICES
MANCHESTER ENVIRONMENTAL LABORATORY**

June 15, 1992

TO: Mike Herold
FROM: Bill Kammin, Environmental_Lab_Director *BK*
SUBJECT: AK-WA Split Metals Results

SAMPLE RECEIPT

The samples from the AK-WA Split Metals project were received by the Manchester Laboratory on 5/15/92 in good condition. However, the lab received no advance notification regarding this project. We received a FAXED Request for Analysis form on 5/14/92, only one day before the samples arrived. When the samples arrived, there was no appropriate paperwork accompanying them. We received the paperwork on 5/20/92.

HOLDING TIMES

All analyses were performed within the specified holding times for metals analysis (28 days for mercury, 180 days for all other metals).

INSTRUMENT CALIBRATION

Instrument calibration was performed before each analytical run and checked by initial calibration verification standards and blanks. Continuing calibration standards and blanks were analyzed at a frequency of 10% during the run and again at the end of the analytical run. All initial and continuing calibration verification standards were within the relevant CLP control limits.

PROCEDURAL BLANKS

The procedural blanks associated with these samples showed no detectable levels of analytes.

SPIKED SAMPLE ANALYSIS

Spiked sample and duplicate spiked sample analyses were performed on sample number 92208040. All spike recoveries were within the acceptance limits of +/- 25%.

PRECISION DATA

The duplicate results of the spiked and duplicate spiked sample were used to calculate precision related to the analysis of these samples. The % RPD for all parameters was within the +/- 20% window for duplicate analysis.

SPIKED BLANK ANALYSIS

Spiked blank analyses were within the windows established for each parameter.

SUMMARY

These samples were a seawater matrix, and ICP reporting limits were raised by a factor of five to account for typical seawater interferences.

The data generated by the analysis of the above referenced samples can be used with the above-mentioned qualifications.

If you have any questions about the results or the methods used to obtain these results, please call me at SCAN 744-4737.

=> Transaction #: 06101607 Laboratory: (WE) Ecology, Manchester Lab
Work Group: (3A) Metals - Total Recoverable, IC
Instrument: (ICP) ICP, Jarrell-Ash AtomComp 1100 (DOE)
Method: (EP1-200.7) Inductively Coupled Plasma Atomic Emissions Analysis
Chemist: (AGH) Hedley, Art DOE Hours Worked:
Project: DOE-061Y AK-WA SPLIT Prg Ele#: J1850
Prj Off: Herold, Mike DOE Analysis Due: 920520 Revised Due:

*** Sample Records in Transaction ***

Seq#	Sample #	QA	Date/Time	Description	Alternate Keys
01	92208040	LBK1	920514	UNDOCKIN	
02	92208040		920514	UNDOCKIN	
03	92208041		920514	BACKGROU	
04	92208042		920514	BE2	
05	92208040	LMX1	920514	UNDOCKIN	
06	92208040	LMX2	920514	UNDOCKIN	

Record Type: TRNIN3 Date Verified: 6-15-92 By: Susan Davis
Transaction Status: New Transaction...First Printing...Unverified.
Processed: 10-JUN-92 16:28:34 Status: N Batch: (In CUR DB)

10-JUN-92

Washington State Department of Ecology

Page 2

*** Lab Analysis Report ***

Transaction #: 06101607 Seq #: 01

(3A) Metals - Total Recoverable, IC

Proj Code : DOE-061Y AK-WA SPLIT

PE # : J1850

Blank ID : EWPB 21.76

Sample No.: 92 208040

Alternate Keys:

Samp Matrix: (10) Water-Total

Units: (00)

%Slds:

QA Code: (LBK1) Lab Blank Sample #1

Peaks Total:

Date Extracted:

Date Analyzed: 920601

Days to Ext/Anal: 0/ 10

Line	Par #	Parameter Description	Units	Value
1	01119	Copper Tot-Rec ug/l		3.0U
2	01114	Lead Tot-Rec ug/l		20U
3	01094	Zinc Tot-Rec ug/l		4.0U

10-JUN-92

Washington State Department of Ecology
*** Lab Analysis Report ***

Page 3

Transaction #: 06101607 Seq #: 02

(3A) Metals - Total Recoverable, IC

Proj Code : DOE-061Y AK-WA SPLIT

PE # : J1850

Sample No.: 92 208040

Alternate Keys:

Samp Matrix: (10) water-Total

Units: (00)

%Slds:

QA Code: () Unspecified

Peaks Total:

Date Extracted:

Date Analyzed: 920601

Days to Ext/Anal: 0/ 18

Line	Par #	Parameter Description	Units	Value
1	01119	Copper Tot-Rec ug/l		451
2	01114	Lead Tot-Rec ug/l		100UN
3	01094	Zinc Tot-Rec ug/l		96P

10-JUN-92

Washington State Department of Ecology

Page 4

*** Lab Analysis Report ***

Transaction #: 06101607 Seq #: 03

(3A) Metals - Total Recoverable, IC

Proj Code : DOE-061Y AK-WA SPLIT

PE # : J1850

sample No.: 92 208041

Alternate Keys:

Samp Matrix: (10) Water-Total

Units: (00)

%Slds:

QA Code: () Unspecified

Peaks Total:

Date Extracted:

Date Analyzed: 920601

Days to Ext/Anal: 0/ 18

Line	Par #	Parameter Description	Units	Value
1	01119	Copper Tot-Rec ug/l		15U
2	01114	Lead Tot-Rec ug/l		100UN
3	01094	Zinc Tot-Rec ug/l		20U

10-JUN-92

Washington State Department of Ecology
*** Lab Analysis Report ***

Page 5

Transaction #: 06101607 Seq #: 04

(3A) Metals - Total Recoverable, IC

Proj Code : DOE-061Y AK-WA SPLIT

PE # : J1850

Sample No.: 92 208042

Alternate Keys:

Samp Matrix: (10) Water-Total

Units: (00)

%Slds:

QA Code: () Unspecified

Peaks Total:

Date Extracted:

Date Analyzed: 920601

Days to Ext/Anal: 0/ 18

Line	Par #	Parameter Description	Units	Value
1	01119	Copper Tot-Rec ug/l		15U
2	01114	Lead Tot-Rec ug/l		100UN
3	01094	Zinc Tot-Rec ug/l		20U

10-JUN-92

Washington State Department of Ecology
*** Lab Analysis Report ***

Page 6

Transaction #: 06101607 Seq #: 05

(3A) Metals - Total Recoverable, IC

Proj Code : DOE-061Y AK-WA SPLIT

PE # : J1850

Sample No.: 92 208040

Alternate Keys:

Samp Matrix: (10) Water-Total

Units: (94) % Recov %Slds:

QA Code: (LMX1) Lab Mtrx Spike #1 (% Rec

Peaks Total:

Date Extracted:

Date Analyzed: 920601

Days to Ext/Anal: 0/ 18

Line	Par #	Parameter Description	Units	Value
1	01119	Copper Tot-Rec ug/l	% Recov	112
2	01114	Lead Tot-Rec ug/l	% Recov	70
3	01094	Zinc Tot-Rec ug/l	% Recov	90

10-JUN-92

Washington State Department of Ecology
*** Lab Analysis Report ***

Page 7

Transaction #: 06101607 Seq #: 06

(3A) Metals - Total Recoverable, IC

Proj Code : DOE-061Y AK-WA SPLIT

PE # : J1850

Sample No.: 92 208040

Alternate Keys:

Samp Matrix: (10) Water-Total

Units: (94) % Recov %Slds:

QA Code: (LMX2) Lab Mtrx Spike #2 (% Rec

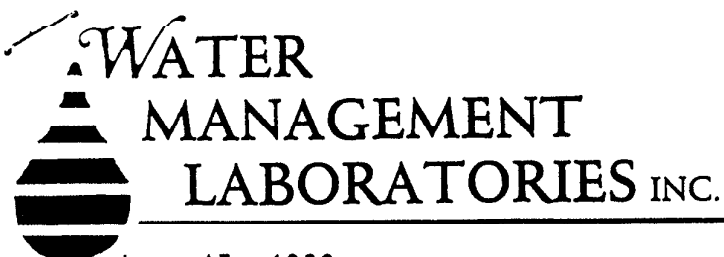
Peaks Total:

Date Extracted:

Date Analyzed: 920601

Days to Ext/Anal: 0/ 18

Line	Par #	Parameter Description	Units	Value
1	01119	Copper Tot-Rec ug/l	% Recov	103
2	01114	Lead Tot-Rec ug/l	% Recov	68
3	01094	Zinc Tot-Rec ug/l	% Recov	90



1515 80th St. E.
Tacoma, WA 98404
531-3121

June 17, 1992

AKWA, Inc
401 Alexander, Bldg 588
Tacoma, WA 98421
Attn: Rocky Becker, QA / Safety Director

Department of Ecology
Water Quality Program

JUL 06 1992

Dear Sir:

Results of analysis of two composite water samples taken on 5-14-92 and received 5-14-92 at 11:09 a.m. are as follows:

Sample ID: Section 1

<u>Test</u>	<u>Background</u>	<u>Undocking</u>
pH (units)	7.8	7.7
Oil & Grease (mg/l)	less than 0.5	less than 0.5
Total Suspended Solids (mg/l)	2.0	17.2
TR* Copper (ug/l)	less than 50	1370
TR* Zinc (ug/l)	less than 50	260
TR* Lead (ug/l)	less than 100	less than 100
Dissolved Zinc (ug/l)	less than 50	140
Dissolved Copper (ug/l)	less than 50	390
Dissolved Lead (ug/l)	less than 100	less than 100

*TR equals total recoverable

Lab number 89-11016

P.O. number 7008-003-49P

The tests were performed to Standard Methods for the Examination of Water and Wastewater, 16th Edition.

Sincerely,


George P Schonhard

September 25, 1992

to: in house file
from: Mike Herold, ¹⁴
subject: AK-WA Metal Analyses Results

The high values for zinc, copper and lead which were evident in DMR submittals of background water from Hylebos Waterway were questioned and found to be suspect.

After receiving approximately four sets of data from the undocking sample events at AK-WA, something finally registered that these metal values shouldn't be so high. The matrix is saltwater and can be difficult to handle. There is no established protocol apparently for the salty water samples. Sodium and potassium create massive interferences.

I talked it over with Rocky Becker and decided to perform a split of an undocking sampling event in order to compare results between the Water Management lab metal results and the Ecology lab results. I personally delivered the samples to WMA and toured the lab and spoke to the analyst performing the metal tests. The individual felt that his methods, although different from the Ecology Lab, were sound. He further stated that he was not surprised at the high concentrations because metal ore ships and transfer operations have been spilling these metals into Commencement Bay for years. Rather than continue the charade of blind split analyses, I expressed that his results are not supported by other data on metal concentrations in the Bay. I asked him to look real hard at his methods as we would be also testing the samples at Ecology. Not too surprisingly, the background values on this sampling event were reported as nondetects. The undocking sample concentrations, those that one would expect to be affected by the undocking procedure also dropped considerably from the past concentrations.

I recommend that the previous values reported in AK-WA DMRs for metals be viewed with caution. I do not feel that they represent an accurate picture of Hylebos WW metal concentrations. AK-WA is now using a different lab for DMR reports.



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

W. Q. POINT SOURCE SECTION
WASTEWATER DISCHARGE
PERMIT FEE UNIT

TO: Regional Office ~~Permit Coordinator~~

FROM: Sally Attwood, Hq. Permit Fee Unit

SUBJECT: Checklist of Items Needed to Enter into Permit Fee Data Base

The following items were missing from the permit information recently sent us. Please send those checked so we can enter them into or delete them from the data base and collect/cancel their permit fee. This will then allow us to count your "bean". Thanks.

Also, for your information, our unit is the repository of hard files previously housed at Hq. Central Records...another reason for keeping them complete.

Thanks again. Any questions my phone number is SCAN 585-7097.

Permit No. 11-44702 Entity: ABC-123

- _____ copy of Permit
- _____ copy of Fact Sheet
- _____ copy of latest Application
- ~~_____~~ Yellow Fee Category form
- _____ copy of Cancellation letter

sa

**FORM
2C
NPDES**



U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
DRYDOCK	47	17	5	122	24	20	COMMENCEMENT BAY
STORM DRAINS	47	17	0	122	24	30	HYLEBOS WATERWAY
VESSEL DECKS	47	17	5	122	24	10	COMMENCEMENT BAY

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUT-FALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
	a. OPERATION (list)	b. AVERAGE FLOW (include units)	c. DESCRIPTION	d. LIST CODES FROM TABLE 2C-1
1	DRYDOCK - STORMWATER			
	RUNOFF FROM BASIN	740,000 GPYR		4A
	PROCESS WATER	1,080,000 GPYR		4A
	HYDROBLASTING	140,000 GPYR		4A
2	YARD AREAS - STORMWATER			
	RUNOFF	929,810 GPYR		4B
3	PIER SIDE VESSELS			
	STORMWATER	444,000 GPYR		4A
	WASHWASTER	360,000 GPYR		4A

OFFICIAL USE ONLY (DIFFERENT PRIORITIES AND CATEGORIES)

NPDES PERMIT APPLICATION QUESTIONNAIRE
SUPPLEMENTING FORM 2C
FOR SHIPBUILDING AND REPAIR FACILITIES

I. GENERAL INFORMATION

A. NAME OF FACILITY:

B. ADDRESS:

C. CITY:

STATE: WASHINGTON ZIP CODE:

D. PHONE NO.:

E. WATER WAY:

II. SERVICES PROVIDED in a typical year:

A. Do you predominately provide new construction? y/☒n
and/or repair? ☒y/n

B. What types of vessels; i.e. tugs, fishing vessels, barges, factory ships, etc.; do you provide services to?
All types of Commercial and Government vessels up to 500 feet in length.

C. What hull materials do you work on? Wood, Steel, Aluminum, Fiberglass, Other. 99% of all hull materials are steel, the other 1% consists of aluminum or wood.

D. Estimate total number of vessels worked on in a typical year?
Eighty (80).

E. Does the facility have:

	yes	or no
1. Drydock	<u>X</u>	<u>—</u>
2. Graving dock	<u>—</u>	<u>X</u>
3. Marineway	<u>—</u>	<u>X</u>
4. Lift	<u>—</u>	<u>X</u>
5. Travel haul	<u>—</u>	<u>X</u>
6. Crane	<u>X</u>	<u>—</u>

NPDES PERMIT APPLICATION QUESTIONNAIRE

Page 2

III. YARD CAPACITY

- A. Capacity of the Drydock, Marine way, Crane, etc. which remove vessels from the water for access to hull?

Code	Tonnage	Overall Length	Wingwall Length	Width	Wingwall Height
Wood	10,000 Ton	515'	475'	114'	32'

- B. Describe the location and construction of the drydock, marine way, crane, etc. (In addition to a narrative, please attach a site plan of the shipbuilding and repair facility.) The drydock is a wood floating sectional dock. The dock is moored on the West side of Pier 25 and is composed of 6 independent sections all of which can be operated independently from the others. The drydock floor is flush and slopes down toward wing walls. Drains are provided at each of the sections along the wing walls.

Site plan attached.

IV. HYDROBLASTING, SANDBLASTING PRACTICES

- A. Of the hulls your yard worked on in the last year what percentage:

1. Needed the complete hull sandblasted and repainted? 60%
2. Needed half the hull sandblasted and repainted? 20%
3. Needed less than 1/4 of the hull sandblasted and repainted? 20%
4. What percentage of the hulls only needed a high pressure wash (hydroblasting)? 10%
5. What percentage of the hulls only needed a low pressure wash? 60% remove surface contaminants
6. How much of the paint removal consists of sanding and scraping? On exterior hulls, only minor touch up and repairs are done by sanding or scraping. Sanding and scraping is used on 80% of all interior paint jobs.

NPDES PERMIT APPLICATION QUESTIONNAIRE

Page 3

- B. For the sandblasting done in a typical year (the last year if that answer is easier to obtain) how many tons of abrasive material are used.

Approximately 1000 tons of abrasive material are used per year.

- C. If possible estimate the percentage of sandblast grit used on drydocks:

1. in ship holds, 15%
2. on ship superstructures, 25%
3. Ships hull. 50%

- D. Estimate the percent of grit used in a sandblast shed?

10%

- E. How do you store spent sandblast grit?

Used blast grit is stored in a designated collection site. The site is paved and contained with concrete blocks on three sides. Tarps are used to cover sand during storage.

- F. How, how often, and where is the spent sandblast grit disposed of? Once the containment site is full, a random sample is taken for laboratory analysis (EPA Toxicity Test). Once the sand passes the EPA tox test, it is trucked to a disposal site by a sub-contractor.

- G. Where do you do hydroblasting (high pressure washing of hulls)? In the drydock. Hydroblasting is used only to remove sea growth, salts and other surface contaminants on ships hulls. It is not used to remove existing coatings.

- H. Do you use an acid solution when hydroblasting?
If so, which product?

NO

- I. Do you pretreat; ie, filter, settle, centrifuge, etc.; the hydroblasting wash water?

If so, how?

NO

NPDES PERMIT APPLICATION QUESTIONNAIRE
Page 4

V. PAINTING PRACTICES

A. What anticorrosive paints are commonly used at your yard
(you may attach manufacturers data sheets)?

International Paint KHA304 ITUF Epoxy
DEVOE Marine Coatings - Devran 230 Epoxy
DEVOE Marine Coatings - Formula 150 Epoxy

B. What anti fouling paints are commonly used at your yard
(you may attach manufacturers data sheets)?

DEVOE Marine Coatings - Devoe ABC #3
International Paint - Formula 121

C. Describe the location and construction of the paint
storage building or area. All paints are stored in a designated paint
storage room. The room is an integral part of Building #588 which is located
on land adjacent to Pier 25. This room was specially built for paint storage.

D. Where is paint mixed? Paint is generally mixed on site where painting
is to take place.

E. Do you use drip pans or visquine to contain paint spills?

Yes, see attached Effluent Limitation Guidelines.

F. Do you or vessel owners/operators do touch up painting or
detail painting on vessels from floats?

Occasionally some final detail painting is performed from floats.

G. Do you have a still for recycling paint thinners?

Yes.

H. What are your procedures for minimizing waste paint
disposal?

1. All partially opened cans are resealed and returned for storage daily.
2. Paints are stored in a controlled and secured area. Only enough paint
is released to the job site as can be used that day.
3. Still bottoms are reduced to a completely dry powder, removing all solvent
content.
4. Equipment is wiped clean as much as practical before solvent washing, thus
minimizing the amount of paint sludges in used solvents.

NPDES PERMIT APPLICATION QUESTIONNAIRE

Page 5

- I. What waste disposal company disposes of your still bottoms and waste paint?

Sol-Pro, Tacoma.

- J. How often do you dispose of waste paint and still bottoms?

Estimated to be approximately twice a year.

- K. Where and how is waste paint stored prior to disposal?

Waste paints are baked to remove all possible solvents to a dry powder. Powder is then stored in designated steel drums until sent for disposal.

VI. ENGINE and EQUIPMENT REPAIR SERVICES

- A. What is the estimate number of engine repairs made annually? Most engine repairs, except for maintenance of company equipment, are performed by sub-contractors.

- B. Describe the facility for storage of waste oil?

Used oil and oily water is stored in a designated 2500 gallon above ground steel tank. The tank is labelled as to contents and equipped with an attached spill/overflow containment.

- C. How often is stored waste oil disposed of?

Approximately 10 to 14 times per year.

- D. Is it recycled and if so by whom?

Yes, for fuel oil by United Drain Company.

- E. Do you drain engine filters before disposing of the filter? Yes.

- F. Do you have steam cleaning facilities at your yard? No.

- G. Do you use dip tanks for cleaning machine parts? Yes.

1. What type of degreasers do you use? Degreaser heavy - manufactured by Inland Chemical company.

2. What type of recycle/disposal service do you use for solvents and degreasers? Materials are reused and new solvents/degreasers added as required. Tank is cleaned by pumping cleaners into drums for temporary storage, sludge is removed and solvents reinstalled.

NPDES PERMIT APPLICATION QUESTIONNAIRE

Page 6

H. How do you store and dispose of used hydraulic fluids?

Disposed of with waste oils.

I. How do you store and dispose of used antifreeze and coolants? Coolants on vessels are reinstalled after work is complete. Only disposal would be on general maintenance of company equipment. This would be disposed of in the sewer system.

H. What type of storage do you have for batteries?

None - batteries are always exchanged when new ones are purchased.

I. How often do you dispose of used batteries?

VIII. WASTE DISPOSAL SERVICES

A. Do the services provided by your yard include:

1. Pumping bilge water? Yes.

2. If so, how frequently? On 50% of all jobs, bilges need occasional pumping.

3. Pumping ballast water? Very seldom is the yard required to pump ballast water. This usually is accomplished by the vessel operator.

4. If so, how frequently?

5. If so, how is bilge water or ballast water disposed of?

Initial cleaning and disposal is performed by sub-contractor such as Marine Vacuum Service. Uncontaminated water is pumped directly into surrounding waters.

6. What facilities do you have for receiving sanitary wastes and gray water from docked vessels? All sewage is stored in portable 10000 gallon sewage tanks. These are placed adjacent to the vessel and then pumped as required by a sewage disposal company such as Cascade Septic.

NPDES PERMIT APPLICATION QUESTIONNAIRE

Page 7

IX. OTHER WASTE DISPOSAL OR RECYCLING

A. Who, how are where, if you know, are the following solid wastes disposed of?

1. Sandblast grit, disposed of by a sub-contractor after satisfactorily completing EPA Toxicity Test.
2. Scrap metal, recycled by General Metal in Tacoma.
3. Glass. disposed of with city garbage.

B. Who, how and where, if you know, are fiberglass resin and solvents disposed of? AK-WA performs almost no fiberglass work and accumulates no fiberglass resins or solvents.

X. OTHER SERVICES

A. Do you supply cooling water to moored or drydocked vessels? Yes, generally cooling water for refrigerant compressors.

B. If so, how often?
Three or four vessels per year.

XI. MANAGEMENT PRACTICES

A. Do you have a maintenance plan for preventing accidental loss of oil, fuel, paint etc. due to equipment failures?
Yes.

B. Does the plan specifically identify who is responsible for what tasks and how often? AK-WA Effluent Limitation Guidelines are standard company policy. All employees and craft supervisors are required, by the AK-WA management, to follow all guidelines applicable to their department. Company officers have accepted the responsibility to ensure these guidelines are followed as standard practice.

NPDES PERMIT APPLICATION QUESTIONNAIRE

Page 8

- C. Does the maintenance plan include routine cleaning, sweeping, and vacuuming of docks, paved work areas, and catch basins? Yes.
- D. Please provide a copy with the return of the permit application. Enclosed.
- E. Do you provide guidance to arriving vessels on pollution prevention practices you expect them to comply with?
Yes, this is part of the Pre-arrival conference.
- D. If so, please provide a copy with the return of the permit application? No written formal program other than the Effluent Guidelines is provided.
- E. Do you have a employee training program which includes pollution prevention practices and worker right to know information? Yes.

If you would like that training program included or consider as part of the permit "Best Management Practices" please provide a copy with the return of the permit application.
- F. Do you have in effect a Spill Prevention and Counter-Measure Plan? If so, please provide a copy.

NO

XII. SITE PLAN

Please provide a site plan locating storm drains, catch basins, oil and waste oil storage areas, paint storage area, paint booth, solvent still, work areas, etc.

Please provide a location map of the facility. It is sufficient to indicate the site location on a photocopy of a USGS quadrangle map.

shpquest



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

7272 Cleanwater Lane, LU-11 • Olympia, Washington 98504-6811 • (206) 753-2353

NOTICE: ANNOUNCEMENT OF APPLICATION FOR
ISSUANCE OF A PERMIT TO DISCHARGE
TO STATE WATERS

PERMIT NO.: WA-004015-2

PERMITTEE: AK-WA Incorporated
401 Alexander Avenue, Bldg. 588
Tacoma, WA 98421

The above-named industry has applied for issuance of a National Pollutant Discharge Elimination System (NPDES) permit in accordance with the provisions of Chapter 90.48 Revised Code of Washington and the Federal Clean Water Act.

AK-WA Inc. seeks permit authorization for an existing discharge of stormwater and hydroblasting wastewater from the facility at Piers 24 and 25 near the mouth of Hylebos Waterway. The Hylebos Waterway is a problem area identified in the "Commencement Bay Nearshore/Tideflats Record of Decision" issued by the U.S. Environmental Protection Agency.

I. TENTATIVE DETERMINATIONS

On the basis of preliminary staff review, the Department proposes to issue a permit that authorizes the above discharge pursuant to certain limitations. A final determination will not be made until all comments received, pursuant to this notice, have been evaluated.

II. PUBLIC COMMENT AND INFORMATION

Interested persons are invited to submit written comments regarding the proposed permit within 30 days of the date of this public notice. Comments should be sent to:

Washington Department of Ecology
Southwest Regional Office
7272 Cleanwater Lane, Mail Stop LU-11
Olympia, Washington 98504

If the comments received indicate significant public interest in a proposed permit or if useful information can be produced thereby, the director may hold a public hearing on the application. Public notice of such hearings will be given at least 30 days in advance of the hearing.

The application, proposed permit, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 4:30 p.m. weekdays at the aforementioned regional office of the Department. A copying machine is available for use at a nominal charge. Further information may be obtained by telephoning (206) 753-2353.

(PN6/5)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any

e discharges described in Items II-A or B intermittent or seasonal?

☐ YES (complete the following table)

☐ NO (go to Section III)

1. OUTFALL NUMBER (list)	2. OPERATION(s) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW					
		a. DAYS PER WEEK (specify average)	b. MONTHS PER YEAR (specify average)	a. FLOW RATE (in mgd)		b. TOTAL VOLUME (specify with units)		c. DUR- ATION (in days)	
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY		

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES (complete Item III-B)

☐ NO (go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

☐ YES (complete Item III-C)

☐ NO (go to Section IV)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION

2. AFFECTED
OUTFALLS

a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	2. AFFECTED OUTFALLS (list outfall numbers)

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (complete the following table)

☐ NO (go to Item IV-B)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. ☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

NPDES PERMIT APPLICATION QUESTIONNAIRE
SUPPLEMENTING FORM 2C
FOR SHIPBUILDING AND REPAIR FACILITIES

I. GENERAL INFORMATION

A. NAME OF FACILITY:

B. ADDRESS:

C. CITY:

STATE: WASHINGTON

ZIP CODE:

D. PHONE NO.:

E. WATER WAY:

II. SERVICES PROVIDED in a typical year:

A. Do you predominately provide new construction? y/n
and/or repair? ☒n

B. What types of vessels; i.e. tugs, fishing vessels, barges, factory ships, etc.; do you provide services to?
All types of Commercial and Government vessels up to 500 feet in length.

C. What hull materials do you work on? Wood, Steel, Aluminum, Fiberglass, Other. 99% of all hull materials are steel, the other 1% consists of aluminum or wood.

D. Estimate total number of vessels worked on in a typical year?

Eighty (80).

E. Does the facility have:

	yes	or	no
1. Drydock	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Graving dock	<input type="checkbox"/>		<input checked="" type="checkbox"/>
3. Marineway	<input type="checkbox"/>		<input checked="" type="checkbox"/>
4. Lift	<input type="checkbox"/>		<input checked="" type="checkbox"/>
5. Travel haul	<input type="checkbox"/>		<input checked="" type="checkbox"/>
6. Crane	<input checked="" type="checkbox"/>		<input type="checkbox"/>

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III. YARD CAPACITY

- A. Capacity of the Drydock, Marine way, Crane, etc. which remove vessels from the water for access to hull?

Code	Tonnage	Overall Length	Wingwall Length	Width	Wingwall Height
Wood	10,000 Ton	515'	475'	114'	32'

- B. Describe the location and construction of the drydock, marine way, crane, etc. (In addition to a narrative, please attach a site plan of the shipbuilding and repair facility.) The drydock is a wood floating sectional dock. The dock is moored on the West side of Pier 25 and is composed of 6 independent sections all of which can be operated independently from the others. The drydock floor is flush and slopes down toward wing walls. Drains are provided at each of the sections along the wing walls.

Site plan attached.

IV. HYDROBLASTING, SANDBLASTING PRACTICES

- A. Of the hulls your yard worked on in the last year what percentage:

1. Needed the complete hull sandblasted and repainted? 60%
2. Needed half the hull sandblasted and repainted? 20%
3. Needed less than 1/4 of the hull sandblasted and repainted? 20%
4. What percentage of the hulls only needed a high pressure wash (hydroblasting)? 10%
5. What percentage of the hulls only needed a low pressure wash? 60% remove surface contaminants
6. How much of the paint removal consists of sanding and scraping? On exterior hulls, only minor touch up and repairs are done by sanding or scraping. Sanding and scraping is used on 80% of all interior paint jobs.

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- B. For the sandblasting done in a typical year (the last year if that answer is easier to obtain) how many tons of abrasive material are used.

Approximately 1000 tons of abrasive material are used per year.

- C. If possible estimate the percentage of sandblast grit used on drydocks:

1. in ship holds, 15%
2. on ship superstructures, 25%
3. Ships hull, 50%

- D. Estimate the percent of grit used in a sandblast shed?

10%

- E. How do you store spent sandblast grit?

Used blast grit is stored in a designated collection site. The site is paved and contained with concrete blocks on three sides. Tarps are used to cover sand during storage.

- F. How, how often, and where is the spent sandblast grit disposed of?

Once the containment site is full, a random sample is taken for laboratory analysis (EPA Toxicity Test). Once the sand passes the EPA tox test, it is trucked to a disposal site by a sub-contractor.

- G. Where do you do hydroblasting (high pressure washing of hulls)?

In the drydock. Hydroblasting is used only to remove sea growth, salts and other surface contaminants on ships hulls. It is not used to remove existing coatings.

- H. Do you use an acid solution when hydroblasting?

If so, which product?

NO

- I. Do you pretreat; ie, filter, settle, centrifuge, etc.; the hydroblasting wash water?

If so, how?

NO

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V. PAINTING PRACTICES

A. What anticorrosive paints are commonly used at your yard (you may attach manufacturers data sheets)?

International Paint KHA304 ITUF Epoxy
DEVUE Marine Coatings - Devran 230 Epoxy
DEVUE Marine Coatings - Formula 150 Epoxy

B. What anti fouling paints are commonly used at your yard (you may attach manufacturers data sheets)?

DEVUE Marine Coatings - Devue ABC #3
International Paint - Formula 121

C. Describe the location and construction of the paint storage building or area. All paints are stored in a designated paint storage room. The room is an integral part of Building #588 which is located on land adjacent to Pier 25. This room was specially built for paint storage.

D. Where is paint mixed? Paint is generally mixed on site where painting is to take place.

E. Do you use drip pans or visquine to contain paint spills?

Yes, see attached Effluent Limitation Guidelines.

F. Do you or vessel owners/operators do touch up painting or detail painting on vessels from floats?

Occasionally some final detail painting is performed from floats.

G. Do you have a still for recycling paint thinners?

Yes.

H. What are your procedures for minimizing waste paint disposal?

1. All partially opened cans are resealed and returned for storage daily.
2. Paints are stored in a controlled and secured area. Only enough paint is released to the job site as can be used that day.
3. Still bottoms are reduced to a completely dry powder, removing all solvent content.
4. Equipment is wiped clean as much as practical before solvent washing, thus minimizing the amount of paint sludges in used solvents,

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- I. What waste disposal company disposes of your still bottoms and waste paint?**

Sol-Pro, Tacoma.

- J. How often do you dispose of waste paint and still bottoms?**

Estimated to be approximately twice a year.

- K. Where and how is waste paint stored prior to disposal?**

Waste paints are baked to remove all possible solvents to a dry powder. Powder is then stored in designated steel drums until sent for disposal.

VI. ENGINE and EQUIPMENT REPAIR SERVICES

- A. What is the estimate number of engine repairs made annually?** Most engine repairs, except for maintenance of company equipment, are performed by sub-contractors.

- B. Describe the facility for storage of waste oil?**

Used oil and oily water is stored in a designated 2500 gallon above ground steel tank. The tank is labelled as to contents and equipped with an attached spill/overfill containment.

- C. How often is stored waste oil disposed of?**

Approximately 10 to 14 times per year.

- D. Is it recycled and if so by whom?**

Yes, for fuel oil by United Drain Company.

- E. Do you drain engine filters before disposing of the filter?** Yes.

- F. Do you have steam cleaning facilities at your yard?** No.

- G. Do you use dip tanks for cleaning machine parts?** Yes.

- 1. What type of degreasers do you use?** Degreaser heavy - manufactured by Inland Chemical company.

- 2. What type of recycle/disposal service do you use for solvents and degreasers?** Materials are reused and new solvents/degreasers added as required. Tank is cleaned by pumping cleaners into drums for temporary storage, sludge is removed and solvents reinstalled.

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H. How do you store and dispose of used hydraulic fluids?

Disposed of with waste oils.

I. How do you store and dispose of used antifreeze and coolants? Coolants on vessels are reinstalled after work is complete. Only disposal would be on general maintenance of company equipment. This would be disposed of in the sewer system.

H. What type of storage do you have for batteries?

None - batteries are always exchanged when new ones are purchased.

I. How often do you dispose of used batteries?

VIII. WASTE DISPOSAL SERVICES

A. Do the services provided by your yard include:

1. Pumping bilge water? Yes.
2. If so , how frequently? On 50% of all jobs, bilges need occasional pumping.
3. Pumping ballast water? Very seldom is the yard required to pump ballast water. This usually is accomplished by the vessel operator.
4. If so, how frequently?
5. If so, how is bilge water or ballast water disposed of?
Initial cleaning and disposal is performed by sub-contractor such as Marine Vacuum Service. Uncontaminated water is pumped directly into surrounding waters.
6. What facilities do you have for receiving sanitary wastes and gray water from docked vessels? All sewage is stored in portable 10000 gallon sewage tanks. These are placed adjacent to the vessel and then pumped as required by a sewage disposal company such as Cascade Septic.

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IX. OTHER WASTE DISPOSAL OR RECYCLING

A. Who, how are where, if you know, are the following solid wastes disposed of?

1. Sandblast grit, disposed of by a sub-contractor after satisfactorily completing EPA Toxicity Test.
2. Scrap metal, recycled by General Metal in Tacoma.
3. Glass. disposed of with city garbage.

B. Who, how and where, if you know, are fiberglass resin and solvents disposed of? AK-WA performs almost no fiberglass work and accumulates no fiberglass resins or solvents.

X. OTHER SERVICES

A. Do you supply cooling water to moored or drydocked vessels? Yes, generally cooling water for refrigerant compressors.

B. If so, how often?
Three or four vessels per year.

XI. MANAGEMENT PRACTICES

A. Do you have a maintenance plan for preventing accidental loss of oil, fuel, paint etc. due to equipment failures?
Yes.

B. Does the plan specifically identify who is responsible for what tasks and how often? AK-WA Effluent Limitation Guidelines are standard company policy. All employees and craft supervisors are required, by the AK-WA management, to follow all guidelines applicable to their department. Company officers have accepted the responsibility to ensure these guidelines are followed as standard practice.

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C. Does the maintenance plan include routine cleaning, sweeping, and vacuuming of docks, paved work areas, and catch basins? Yes.

D. Please provide a copy with the return of the permit application. Enclosed.

E. Do you provide guidance to arriving vessels on pollution prevention practices you expect them to comply with?

Yes, this is part of the Pre-arrival conference.

D. If so, please provide a copy with the return of the permit application? No written formal program other than the Effluent Guidelines is provided.

E. Do you have a employee training program which includes pollution prevention practices and worker right to know information? Yes.

If you would like that training program included or consider as part of the permit "Best Management Practices" please provide a copy with the return of the permit application.

F. Do you have in effect a Spill Prevention and Counter-Measure Plan? If so, please provide a copy.

NO

XII. SITE PLAN

Please provide a site plan locating storm drains, catch basins, oil and waste oil storage areas, paint storage area, paint booth, solvent still, work areas, etc.

Please provide a location map of the facility. It is sufficient to indicate the site location on a photocopy of a USGS quadrangle map.

shpquest

Date	Ship	Oil & Grease	pH	TS	TRPB	TRCu	TRZn	Diss Pb	Diss Cu	Diss Zn
11/29/92	Excellance	<0.1	6.7	3.0	52	261	129	<40	<2	<6
11/29/92	Background	<0.1	7.1	7.0	<40	15	12	<40	3	32
11/5/92	Seafisher	0.8	7.6	16	<40	159	63	<40	90	30
11/5/92	Background	<0.1	7.4	2.4	<40	8	20	<40	8	6

Date	Ship	Oil & Grease	pH	TSS	TR Pb	TR Cu	TR Zn	Diss Pb	Diss Cu	Diss Zn
8/19/92	Stellar Sea	0.2	7.7	13.0	<40	128	222	<40	86	193
8/19/92	Background	0.1	7.5	15.0	<40	8	<6	<40	8	<6
9/10/92	Triton/Arctic	1.0	7.4	10.0	<40	18	59	<40	11	23
9/10/92	Background	0.2	7.7	5.6	<40	6	<6	<40	7	<6
9/23/92	Alaska Packer Wingwall	3.1	8.1	63	<40	1,141	190	<40	354	81
9/23/92	Background	0.4	8.2	3.2	<40	32	16	<40	14	1
9/30/92	Blue Wave	27.0	6.7	57.0	<40	2,515	986	<40	628	99
9/30/92	Background	16.0	6.9	2.6	60	108	<6	<40	9	14
10/15/92	PWS / Jan B	<0.1	7.6	37.0	<40	257	99	<40	166	99
10/26/92	Independence	1.7	6.7	62.0	<40	434	87	110	306	82
10/26/92	Background	0.1	6.6	6.6	<40	8	15	<40	6	11

Date	Ship	Oil & Grease	pH	TSS	TRPB	TRCO	TRZn	Viss Pb	Diss Cu	Diss Zn
5/18/92	U. Curadale	2.7		95.0	<40	629	520		339	
6/1/92	Alaskan Star	0.3	7.6	18.0	<40	293	216	<40	147	116
6/1/92	Background	<0.1	7.7	2.9	<40	<2	<6	<40	<2	<6
6/9/92	Samson Bank	0.8	7.4	60.0	<40	870	385	<40	136	189
6/9/92	Background	0.1	7.6	5.2	440	59	<6	<40	16	<6
6/24/92	M/V Galaxy	1.2	7.4	50.0	<40	63	77	<40	27	55
6/24/92	Back ground	6.0	7.6	0.3	<40	18	33	<40	71	311